COFRDA REPORT 3304

A Photo-series for Assessing Fuels in Natural Forest Stands in Northern Ontario

Forest Resource Development Agreement
Entente sur la mise en valeur de la ressource forestière

Canada

Ontario

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- améliorer et augmenter l'utilisation des ressources forestières afin de favoriser l'expansion future de l'industrie forestière; et,
- contribuer à l'expansion économique du secteur forestier de l'Ontario, y compris l'amélioration des possibilités d'emplois que présente ce secteur.

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Les projets sont approuvés par un comité de gestion composé de représentants du Forêts Canada et du ministère des Richesses naturelles.

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Abstract

This photo-series was designed to present photographs and a detailed inventory of fuels for important stands in the Boreal and Great Lakes - St. Lawrence Forest Regions of Ontario. Over the last 20 years, an experimental burning program conducted by Forestry Canada, Ontario Region has resulted in detailed documentation of fuel loads in selected fuel types. However, very little quantitative data has been gathered on the majority of Ontario's fuel complexes that are found in the Boreal and Great Lakes - St. Lawrence Forest Regions.

During the first phase of the study, a database was compiled on natural fuel loads for 300 stands in a variety of fire-dependent ecosystems across northern Ontario. The 75 stands included in this document depict a representative cross-section of fuel types from the 300 stands. All stands were coded according to the Forest Ecosystem Classification (FEC) system of Ontario, in anticipation that this classification system will find increasing application across many forestry disciplines, including fire management.

With the move toward computer modeling of remote sensing data in conjunction with analysis tools such as Geographic Information Systems (GIS), fuels data such as that presented here will be useful in calibrating fire behavior and fire growth models. The photo-series and data will help fire managers to interpolate between specific fuel types found in the Canadian Forest Fire Behavior Prediction (FBP) System. The document can also be used as a training tool at the operational fire management level to demonstrate the variability within and between fuel types across the province.

Résumé

La collection présente des photographies et l'inventaire détaillé des combustibles d'importants peuplements des régions de la forêt Boréale et de celle des Grands Lacs/Saint-Laurent en Ontario. Depuis 20 ans, le programme de brûlage expérimental que mènent les services régionaux (Ontario) de Forêts Canada a produit des documents détaillés sur les charges de certains types de combustibles. Toutefois, très peu de données quantitatives ont été recueillies sur la majorité des complexes combustibles des régions en question.

Au cours de la première étape de l'étude, on a constitué une base de données sur les charges combustibles naturelles de 300 peuplements dans divers écosystèmes dépendant du feu dans le nord de l'Ontario. Les 75 peuplements traités dans le document constituent un échantillon représentatif des types de combustibles qui se retrouvent dans l'ensemble des 300 peuplements. Tous les peuplements ont été codés selon la classification des écosystèmes forestiers de l'Ontario, car on s'attend à ce que celle-ci soit appliquée de plus en plus à de nombreuses disciplines de la foresterie, par exemple, la gestion des incendies.

Vu l'adoption de la modélisation informatique des données de télédétection conjuguée aux moyens analytiques, tels les systèmes d'information géographique, les données sur les combustibles comme celles qui sont présentées dans ce document seront utiles pour étalonner les modèles de comportement et de propagation du feu. Les photographies et les données aideront les responsables de la gestion des incendies à interpoler entre les types de combustibles trouvés dans la méthode canadienne de prévision du comportement des incendies de forêt. Le document peut aussi servir d'outil de formation dans la lutte contre les incendies pour démontrer la variabilité intra et intertype des combustibles dans la province.

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A PHOTO-SERIES FOR ASSESSING FUELS IN NATURAL FOREST STANDS IN NORTHERN ONTARIO

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Introduction

The increasing demand for forest products from a continually decreasing resource base, in conjunction with an expanding awareness of the significant impact of recent forest fire losses on wood supply in Ontario, has resulted in an enhanced recognition of the need to improve forest fire management techniques on an ongoing basis. Large expenditures to prepare and regenerate harvested sites make little sense unless adequate steps are taken to insure against forest fire losses, thereby increasing the likelihood that the new crop will reach harvesting age. The quantification of forest fuel complexes is an important step in the development of forest fire management strategies, as a knowledge of the amount and arrangement of fuel available for combustion is vital to the accurate prediction of forest fire behavior. Fuel loads and arrangements vary dramatically between fuel complexes and contribute significantly to fire spread and intensity, critical elements of fire behavior.

Over the past twenty years, Forestry Canada fire researchers in Ontario Region have been working to develop models for the quantitative prediction of forest fire behavior. This has involved conducting an extensive experimental burning program in close cooperation with the Ontario Ministry of Natural Resources (OMNR) in important forest fuel types in natural (Stocks 1987a, 1987b, 1989) and harvested (Stocks and Walker 1972; McRae 1985, 1986) stands. Data from these experimental fires, coupled with more general information gathered on numerous Ontario wildfires (Stocks 1975; Stocks and Flannigan 1987; Stocks 1988), has been combined with data collected in a similar manner (Van Wagner 1968; Lawson 1973; Alexander and Lanoville 1987; Alexander et al. 1990) by Forestry Canada fire researchers across Canada to produce the Canadian Forest Fire Behavior Prediction (FBP) System. The FBP System, which quantitatively predicts fire behavior in numerous Canadian fuel types, is a major subsystem of the Canadian Forest Fire Danger Rating System (CFFDRS) (Stocks et al. 1989), which is in use throughout Canada. The FBP System was first issued, in interim form, in 1984 (Alexander et al. 1984; Lawson et al. 1985) and the final version is scheduled for publication in 1990. The Ontario experimental-burning program has resulted in the detailed documentation of fuel loads in those stands selected for experimental burns, but very little quantitative data has been gathered on the vast majority of Ontario's forest fuel complexes. Many fuel types in both the Boreal and Great Lakes - St. Lawrence Forest Regions (Rowe 1972) have not been documented.

In 1987, a study was undertaken in northern Ontario aimed at filling this knowledge gap, and a detailed inventory of fuels was completed for 300 stands in the Boreal and Great Lakes - St. Lawrence Forest Regions (Table 1).

Table 1. Classification of the stands in the present photo series (Rowe 1972).

Forest region	Forest section	Code
Boreal	Northern Clay	B.4
	Missinaibi-Cabonga	B.7
	Central Plateau	B.8
	Superior	B.9
	Upper English River	B.11
	Lower English River	B.14
Great Lakes-St. Lawrence	Quetico	L.11

This study had two primary objectives:

1) the development of a large database on natural fuel loads in a variety of northern Ontario forest ecosystems, and

2) the publication of a manual depicting a representative cross-section of fuel loads in these stands through the use of photographs and fuel data summaries.

Somewhat similar photo-series have been produced in the western United States to characterize natural fuels (Blonski and Schramel 1981; Fischer 1981) as well as fuels produced by human activity (Koski and Fischer 1979). As the field location and sampling of 300 stands throughout northern Ontario was perceived to be a time-consuming and labor-intensive process, a contract was issued under the Canada-Ontario Forest Resource Development Agreement (COFRDA) to cover the field work and primary data analysis portions of this study. Field work was carried out during a 5-month period in 1987, data compilation and analysis were completed over the next year, and a final contract report was prepared (Hunter and Associates 1988).

Site Selection

An overall sampling strategy was designed to ensure that regional, floristic, pedological and ecological characteristics were considered in sample-plot location and distribution. This resulted in between 35 and 45 sampling plots being located in each of OMNR's Kenora, Dryden, Ignace, Thunder Bay and Nipigon districts in northwestern Ontario, whereas 58, 30 and 10 plots were established in the northeastern Ontario districts of Chapleau, Cochrane and North Bay, respectively.

In recent years, Forestry Canada and OMNR have cooperated in the research and development for a system of Forest Ecosystem Classification (FEC) for use in Ontario (Sims et al. 1989). There is an increasing emphasis on integrated, multiple-use management of Ontario's forests in order to meet recreational, wildlife and harvesting requirements. It is anticipated that a classification system that addresses the forest ecosystem as a whole will find increasing application across numerous forestry disciplines in Ontario, including fire management. All 300 stands documented in this study were categorized by means of the FEC system, because future mapping of forest fuel types for fire management purposes is likely to depend heavily on this technique. Under the FEC approach, forest stands are allocated to one of 38 Vegetation Types on the basis of general overstory composition and understory vegetation, and soils are characterized directly in terms of moisture regime and texture. Ordination diagrams, which show the relative similarity or difference between Vegetation Types in terms of tree species, forest-floor vegetation cover, soil texture and soil moisture, are presented in Figure 1. The stands represented in the present photo-series, sorted by Vegetation Type and Soil Type, are presented in Table 2.

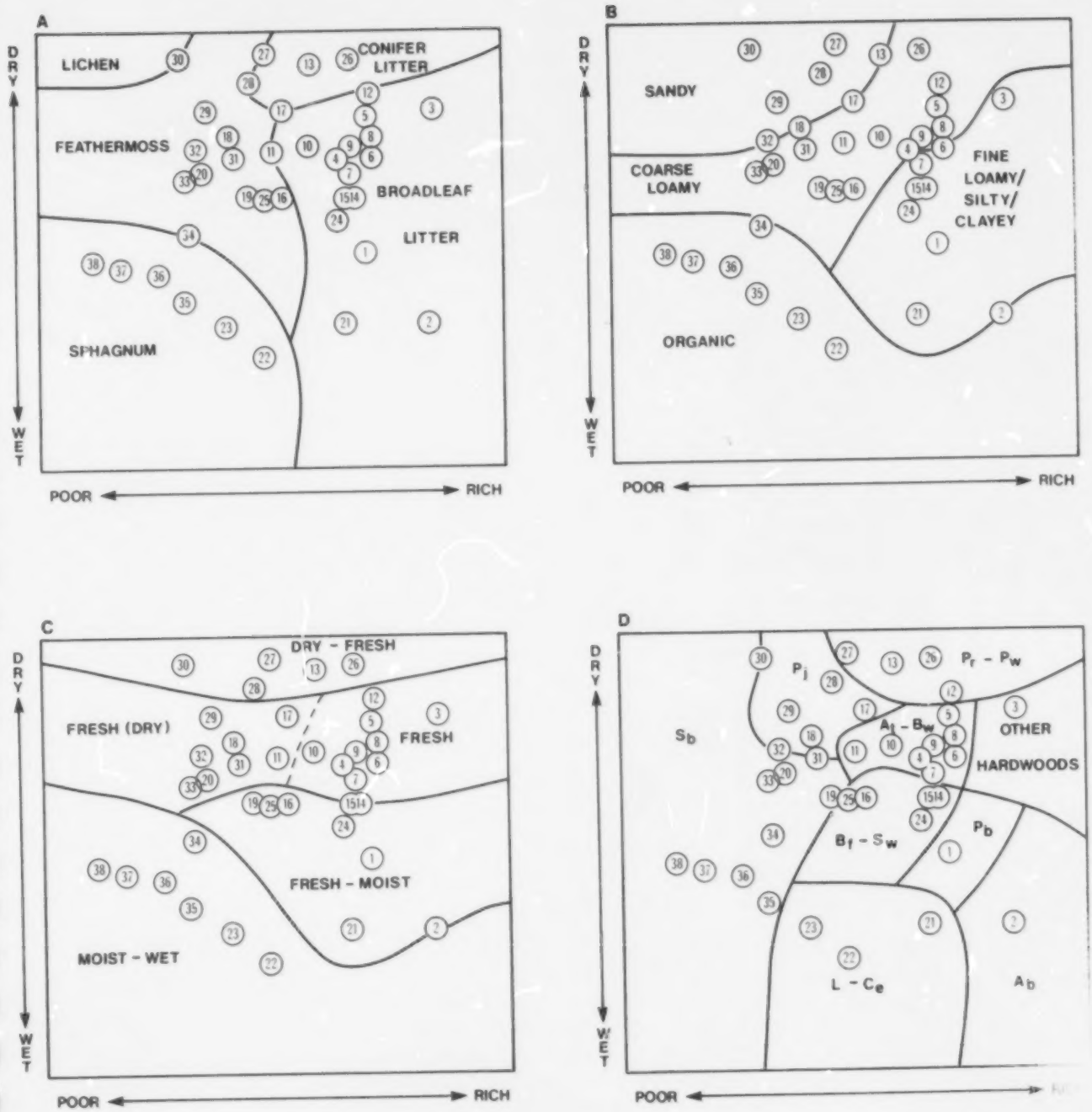

Figure 1. Ordination diagrams (Sims et al. 1989) characterizing the relative similarity between Vegetation Types in terms of (a) forest-floor vegetation cover, (b) soil texture, (c) soil moisture, and (d) tree species (Sb-black spruce, Pj-jack pine, Pr-red pine, Pw-white pine, At-trembling aspen, Bw-white birch, Bf-balsam fir, Sw-white spruce, Pb-balsam poplar, Ab-black ash, L-larch and Ce-cedar).

Table 2. Vegetation Types and Soil Types for stands in this photo series (source: Sims et al. 1989).

Vegetation Type		
Code	Description	Plate No.
V4	white birch hardwood and mixedwood	1,2
V5	aspen hardwood	3
V6	trembling aspen (white birch) - balsam fir/mountain maple	4,5,6,7
V7	trembling aspen - balsam fir/balsam fir shrub	8,9
V8	trembling aspen - (white birch)/mountain maple	10,11,12,13
V9	trembling aspen mixedwood	14
V10	trembling aspen - black spruce - jack pine/low shrub	15,16,17
V11	trembling aspen - conifer/blueberry/feathermoss	18,19
V12	white pine mixedwood	20
V14	balsam fir mixedwood	21,22,23,24
V15	white spruce mixedwood	25,26
V16	balsam fir - white spruce mixedwood/feathermoss	27,28
V17	jack pine mixedwood/shrub rich	29
V18	jack pine mixedwood/feathermoss	30,31,32,33,34
V19	black spruce mixedwood/herb rich	35,36
V20	black spruce mixedwood/feathermoss	37,38,39,40,41
V25	white spruce - balsam fir/feathermoss	42
V27	red pine - conifer	43
V28	jack pine/low shrub	44,45,46,47
V29	jack pine/ericaceous shrub/feathermoss	48,49,50,51,52
V30	jack pine - black spruce/blueberry/lichen	53,54
V31	black spruce - jack pine/tall shrub/feathermoss	55,56,57
V32	jack pine - black spruce/ericaceous shrub/feathermoss	58,59,60,61,62
V33	black spruce/feathermoss	63,64,65
V34	black spruce/labrador tea/feathermoss (sphagnum)	66,67,68,69,70,71
V35	black spruce/speckled alder/sphagnum	72,73
V37	black spruce/ericaceous shrub/sphagnum	74,75

Soil Type	
Code	Description
S1	dry/coarse sandy
S2	fresh/fine sandy
S3	fresh/coarse loamy
S6	fresh/clayey
S7	moist/sandy
S10	moist/fine loamy - clayey
S12F	wet/organic (feathermoss)
S12S	wet/organic (Sphagnum)
SS1	discontinuous organic mat on bedrock
SS2	extremely shallow soil on bedrock
SS3	very shallow soil on bedrock
SS5	shallow - moderately deep/sandy
SS6	shallow - moderately deep/coarse loamy
SS7	shallow - moderately deep/silty - fine loamy - clayey

The field procedure for site selection involved close consultation with OMNR staff in each district in order to obtain general information concerning the availability and accessibility of desired floristic and soil features. OMNR staff also provided the most current forest-resources inventory maps, which were used in final site selection.

Sampling Methodology

Once a desired stand was located, standardized measurement and documentation procedures (McRae et al. 1979) were used in order to gather information on aerial, surface and forest-floor fuels. All sample plots were permanently marked, both in the field and on maps, for future reference.

Overstory tree composition was determined through a 100% strip cruise of a 5- x 50-m plot. All stems were tallied according to species, condition (live or dead) and diameter at breast height (DBH). In addition, both overall height and height to base of live crown were recorded for dominant and codominant trees. Understory vegetation (including all stems <3.0 cm DBH) was identified within a 10- x 10-m plot, which was also used to determine the FEC Vegetation Type (by means of a dichotomous key) for each stand. FEC Soil Types were determined by digging with an auger until the parent material (C-horizon) was reached and then using an FEC hierarchical soil key.

Downed woody-surface-fuel loads were sampled by means of the line-intersect method (McRae et al. 1979). An equilateral triangle (30 m on each side) was located in each sample plot and all woody fuels that intersected the triangle were tallied according to size class.

Forest-floor fuels were sampled by systematically locating five 25- x 25-cm samples within each stand. Forest-floor sections were cut vertically until mineral soil was reached and were then sectioned horizontally into 2-cm-thick layers. Average forest-floor depth was also measured for each sample location. Corresponding layers from the five samples were combined and weighed. Subsamples were then taken for moisture content determination, and oven-dry weights were calculated for each layer.

Detailed photographic documentation was completed for each stand sampled. Horizontal in-stand photographs were taken to depict overstory and understory composition and arrangement as closely as possible. Ground vegetation was also documented with photographs.

Data Presentation

The present photo-series consists of numerical data and photographic documentation from 75 of the 300 stands sampled in northern Ontario. In selecting representative stands for inclusion in the photo-series, emphasis was placed on covering a broad range of FEC Vegetation Types. Good photographic documentation of stand characteristics and ground cover was also a major consideration. The primary variable used to sort stands was the FEC Vegetation Type, and all Vegetation Types ranging from pure hardwoods (V4) to wet black spruce sites (V37) are represented in the photo series. The heaviest weighting has been given to those coniferous fuel types that have traditionally presented the greatest fire management concern (e.g., jack pine and upland black spruce, separately or in combination). The ordination chart presented in Figure 2 separates Vegetation Types, in a general sense, on the basis of forest fire potential and management difficulty.

Each stand is depicted by two photographs in a photographic plate: a larger, in-stand picture (with a 2-m range pole to show the scale) that shows overstory and understory composition in the most representative fashion, and a smaller picture that shows ground cover. Each plate also shows the stand classification determined from the FEC Vegetation Type analysis. The data page for each stand contains information on the geographic

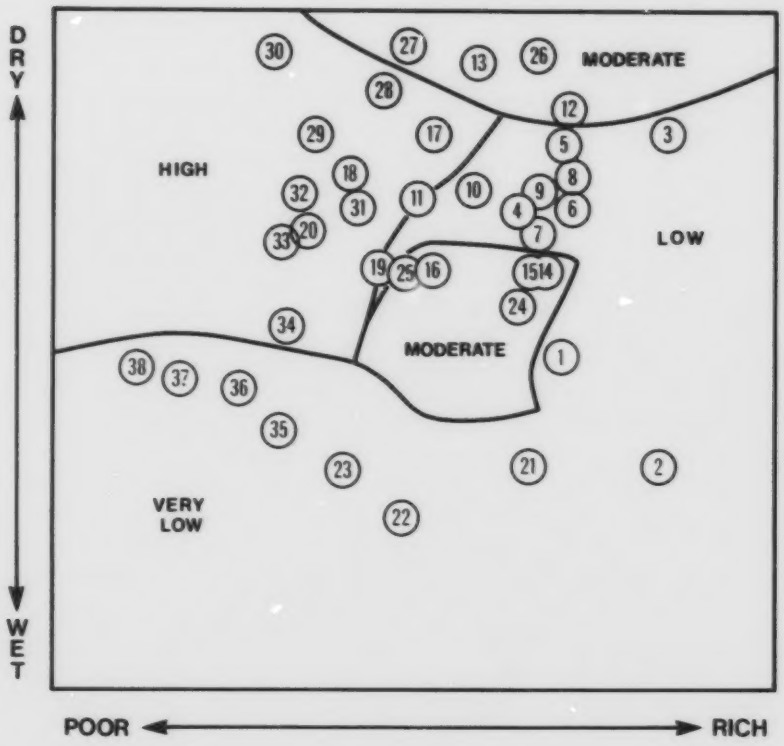

Figure 2. Vegetation Types grouped according to forest fire potential and management difficulty.

location (latitude, longitude, OMNR District) of each sample plot, and the stand classification under the FEC Vegetation and Soil Types classification and by Forest Region and Section (Rowe 1972). Stand characteristics presented in each data sheet include overstory species composition (% by species), diameter-class (DBH) distribution, dominant tree characteristics and a description of the understory vegetation species. Woody surface and forest-floor fuel loads are given separately, by size classes. A list of botanical and common names for all tree and understory-vegetation species is presented in Appendix I.

Photo-series Applications

Information gathered in this study comprises an extensive fuels-inventory database for natural forest stands in Ontario, and will be used in both fuels-inventory compilation work and fire behavior prediction and modeling.

As computer modeling of forest fire behavior becomes more sophisticated, the type of benchmark fuels data gathered in this study, in conjunction with the use of satellite imagery for mapping forest fuel types, will be essential to the development and calibration of fire behavior and fire growth models. The trend in Ontario toward centralized fire management that uses computerized decision-support systems, including Geographic Information Systems (GIS), greatly increases the value and applicability of this type of fuels information to fire managers.

This data will also have immediate applicability to operational fire managers with a need for fuels data that can be applied readily at the field level. The Canadian FBP System deals with only 16 benchmark fuel types across Canada and fire managers are required to fit their fuel complexes to one of the 16 benchmarks. The fuel photo-series in the present report will assist those who must attempt to interpolate between fuel types using the FEC system, and will also provide a valuable training tool for fire managers.

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Appendix 1: List of botanical and common names for overstory and understory species.

Botanical Name	Common name
Abies balsamea	balsam fir
Acer spicatum	mountain maple
Acer rubrum	red maple
Actaea rubra	red baneberry
Alnus crispa	green alder
Alnus rugosa	speckled alder
Amelanchier spp.	serviceberry
Anemone quinquefolia	wood anemone
Apocynum androsaemifolium	spreading dogbane
Aralia nudicaulis	sarsaparilla
Arctostaphylos uva-ursi	bearberry
Aster spp.	aster
Aster macrophyllus	large-leaved aster
Betula papyrifera	white birch
Campanula rotundifolia	round-leaved bluebell
Chamaedaphne calyculata	leather-leaf
Chimaphila umbellata	pipsissewa
Cladina rangiferina	reindeer lichen
Clintonia borealis	bluebead-lily
Coptis trifolia	goldthread
Cornus canadensis	bunchberry
Cornus rugosa	round-leaved dogwood
Cornus stolonifera	red-osier dogwood
Corylus cornuta	beaked hazelnut
Cypripedium acaule	stemless lady's-slipper
Diervilla lonicera	bush honeysuckle
Epigaea repens	trailing arbutus
Epilobium angustifolium	fireweed
Equisetum silvaticum	wood horsetail
fern spp.	fern
feathermoss	feathermoss
Fragaria virginiana	common strawberry
Galium triflorum	fragrant bedstraw
Gaultheria hispidula	snowberry
Gaultheria procumbens	wintergreen
graminoid spp.	graminoid
Juniperus communis	common juniper
Ledum groenlandicum	labrador tea
Linnaea borealis	twinflower
Lonicera canadensis	fly honeysuckle
Lonicera hirsuta	hairy honeysuckle
Lycopodium annotinum	stiff clubmoss
Lycopodium clavatum	running clubmoss
Lycopodium complanatum	ground cedar
Lycopodium obscurum	ground pine
Maianthemum canadense	false lily of the valley
Melampyrum lineare	cow-wheat
Mitella nuda	naked miterwort
Petasites palmatus	colts-foot
Pleurozium schreberi	red-stemmed feathermoss

(cont'd)

Appendix 1: List of botanical and common names for overstory and understory species (concl.).

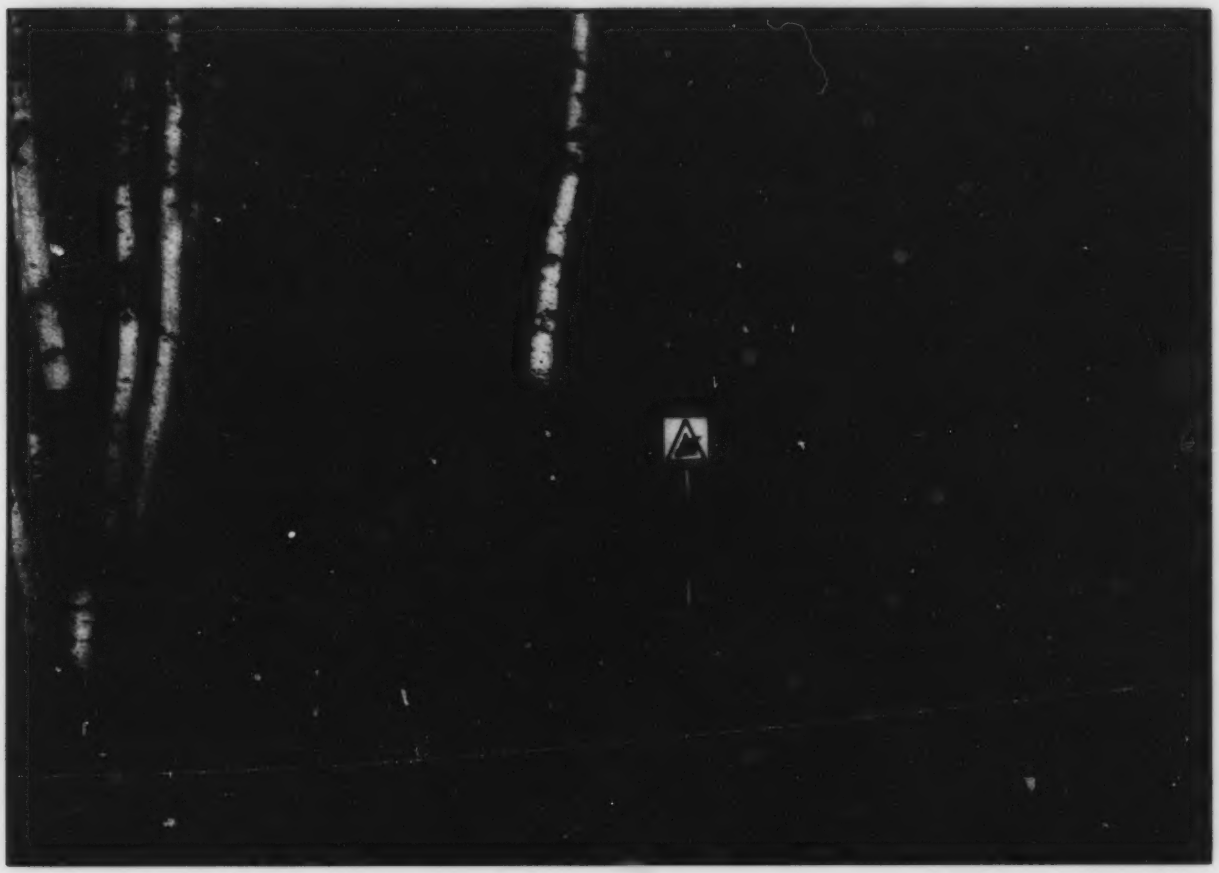
Botanical Name	Common name
Picea glauca	white spruce
Picea mariana	black spruce
Pinus banksiana	jack pine
Populus spp.	poplar
Populus tremuloides	trembling aspen
Potentilla tridentata	threetooth cinquefoil
Prunus spp.	plum, cherry
Prunus pensylvanica	pin cherry
Prunus virginiana	choke cherry
Pteridium aquilinum	bracken fern
Pyrola spp.	pyrola
Pyrola asarifolia	roundleaf pyrola
Ribes spp.	currant
Rosa acicularis	prickly rose
Rubus idaeus	raspberry
Rubus parviflorus	thimbleberry
Rubus pubescens	dwarf raspberry
Salix spp.	willow
Sambucus pubens	red elderberry
Smilacina trifolia	threeleaf smilacina
Solidago spp.	goldenrod
Sorbus americana	american mountain-ash
Sorbus decora	showy mountain-ash
Sphagnum spp.	sphagnum moss
Streptopus roseus	rose twisted-stalk
Trientalis borealis	star flower
Vaccinium spp.	blueberry
Vicia americana	American vetch
Viburnum edule	low-bush cranberry
Viola spp.	violet
Viola renifolia	kidneyleaf violet

Color Plates and Data Sheets,

by

Vegetation Type

Plate 1.



V4

STAND CLASSIFICATION

FEC Vegetation Type: V4
FEC Soils Type: SS6
Forest Section: L.11

LOCATION

Latitude & longitude: 48°05'N,89°47'W
OMNR District: Thunder Bay
Plot number: 191

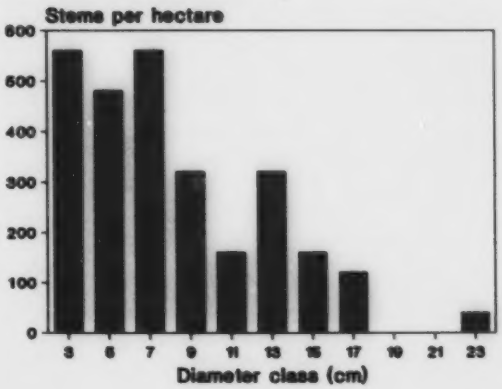
STAND CHARACTERISTICS

Overstory Composition: White birch 65% Balsam fir 29% Black spruce 6%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White birch	13.0	9.5
White birch	12.5	9.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.20	0-2 cm	0.69
3-7 cm	0.25	2-4 cm	0.79
≥ 7 cm	0.70	4-6 cm	0.77
		6-8 cm	1.46
Total	1.15	8-10 cm	1.49
		Total	5.20

Average forest-floor depth: 4.6 cm

Understory Vegetation

Shrubs

Abies balsamea
Acer spicatum
Alnus crispa
Betula papyrifera
Cornus canadensis
Cornus rugosa
Ledum groenlandicum
Linnaea borealis
Populus tremuloides
Ribes spp.
Salix spp.
Sorbus americana

Herbs

Aralia nudicaulis
Clintonia borealis
Coptis trifolia
Lycopodium clavatum
Petasites palmatus
Trientalis borealis
Viola renifolia

Plate 2.

V4

STAND CLASSIFICATION

FEC Vegetation Type: V4
FEC Soils Type: S3
Forest Section: L.11

LOCATION

Latitude & longitude: 48°25'N,89°47'W
OMNR District: Thunder Bay
Plot number: 195

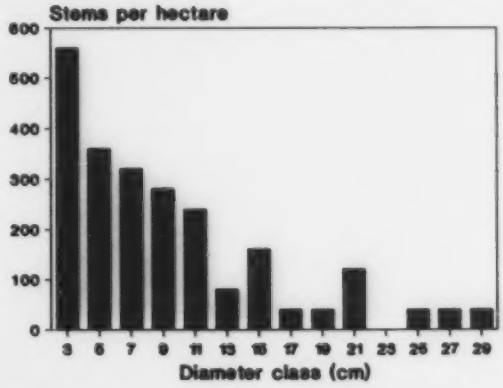
STAND CHARACTERISTICS

Overstory Composition: White birch 36% Balsam fir 32% White spruce 32%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White birch	16.2	10.2
Balsam fir	11.7	5.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.26	0-2 cm	1.05
3-7 cm	0.32	2-4 cm	2.80
≥ 7 cm	1.18	4-6 cm	1.61
		6-8 cm	1.78
Total	1.76	8-10 cm	1.65
		Total	8.89

Average forest-floor depth: 11.5 cm

Understory Vegetation

Shrubs

Abies balsamea
Acer spicatum
Cornus canadensis
Rosa acicularis
Viburnum edule
Maianthemum canadense
Streptopus roseus

Herbs

Aralia nudicaulis
Clintonia borealis
Galium triflorum
Lycopodium annotinum
Lycopodium obscurum

Plate 3.

V5

STAND CLASSIFICATION

FEC Vegetation Type: V5
FEC Soils Type: SS5
Forest Section : L.11

LOCATION

Latitude & longitude: 48°09'N,90°09'W
OMNR District: Thunder Bay
Plot number: 214

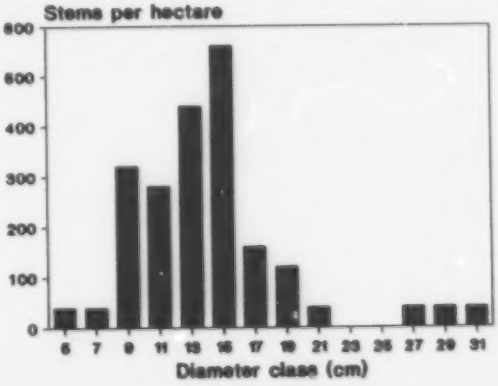
STAND CHARACTERISTICS

Overstory Composition: White birch 66% Poplar 27% White spruce 7%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White birch	19.0	12.0
Poplar	18.0	11.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.24	0-2 cm	0.32
3-7 cm	0.11	2-4 cm	0.73
≥ 7 cm	0.47	4-6 cm	0.59
		6-8 cm	0.20
Total	0.82	Total	1.84

Average forest-floor depth: 4.6 cm

Understory Vegetation

Shrubs

Abies balsamea
Acer spicatum
Betula papyrifera
Corylus cornuta
Diervilla lonicera
Lonicera canadensis
Populus spp.
Rubus parviflorus
Vicia americana
Viola spp.

Herbs

Aster macrophyllus
Clintonia borealis
Coptis trifolia
fern spp.
Maianthemum canadense
Rubus pubescens
Streptopus roseus
Trientalis borealis

Plate 4.

V6

STAND CLASSIFICATION

FEC Vegetation Type: V6
FEC Soils Type: S2
Forest Section: B.7

LOCATION

Latitude & longitude: 47°43'N,83°19'W
OMNR District: Chapleau
Plot number: 57

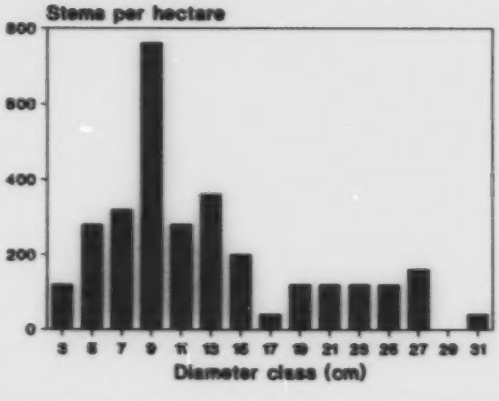
STAND CHARACTERISTICS

Overstory Composition: Black spruce 26% Balsam fir 24% Poplar 22% Jack pine 15% White birch 13%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	24.0	4.0
Balsam fir	15.0	7.0
Poplar	33.0	23.0
Jack pine	23.0	15.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.16	0-2 cm	0.90
3-7 cm	0.18	2-4 cm	0.78
≥ 7 cm	1.09	4-6 cm	1.07
		6-8 cm	0.60
Total	1.43	8-10 cm	0.69
		Total	4.04

Average forest-floor depth: 9.9 cm

Understory Vegetation

Shrubs

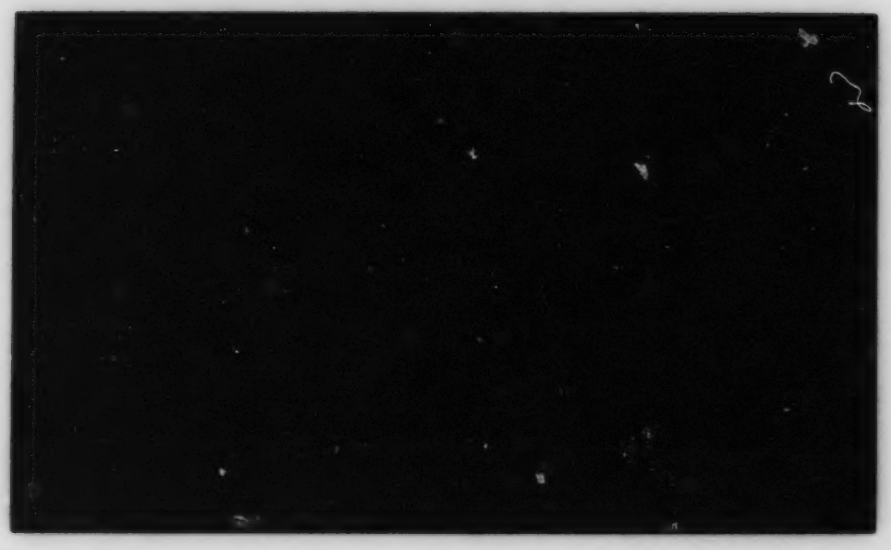
Abies balsamea
Alnus crispa
Amelanchier spp.
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Ledum groenlandicum
Linnaea borealis
Picea mariana
Salix spp.
Sorbus americana
Vaccinium spp.

Herbs

Aralia nudicaulis
Aster macrophyllus
Clintonia borealis
Coptis trifolia
feathermoss
Lycopodium clavatum
Lycopodium obscurum
Maianthemum canadense
Streptopus roseus
Trientalis borealis
Viola spp.

Plate 5.

V6



STAND CLASSIFICATION

FEC Vegetation Type: V6
FEC Soils Type: S2
Forest Section: L.11

LOCATION

Latitude & longitude: 48°13'N,89°53'W
OMNR District: Thunder Bay
Plot number: 209

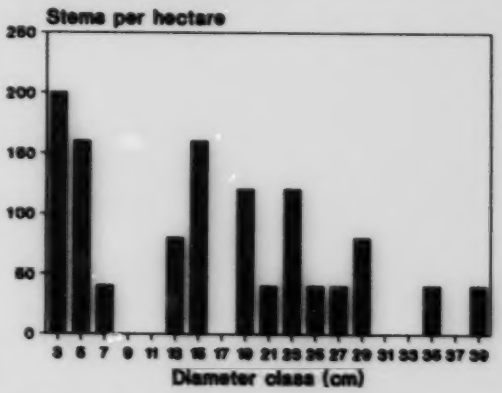
STAND CHARACTERISTICS

Overstory Composition: Balsam fir 52% Poplar 43% White birch 5%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	19.2	12.0
Balsam fir	14.5	7.2

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.57	0-2 cm	0.72
3-7 cm	0.15	2-4 cm	2.00
≥ 7 cm	2.09	4-6 cm	1.87
		6-8 cm	0.77
Total	2.81	Total	5.36

Average forest-floor depth: 6.2 cm

Understory Vegetation

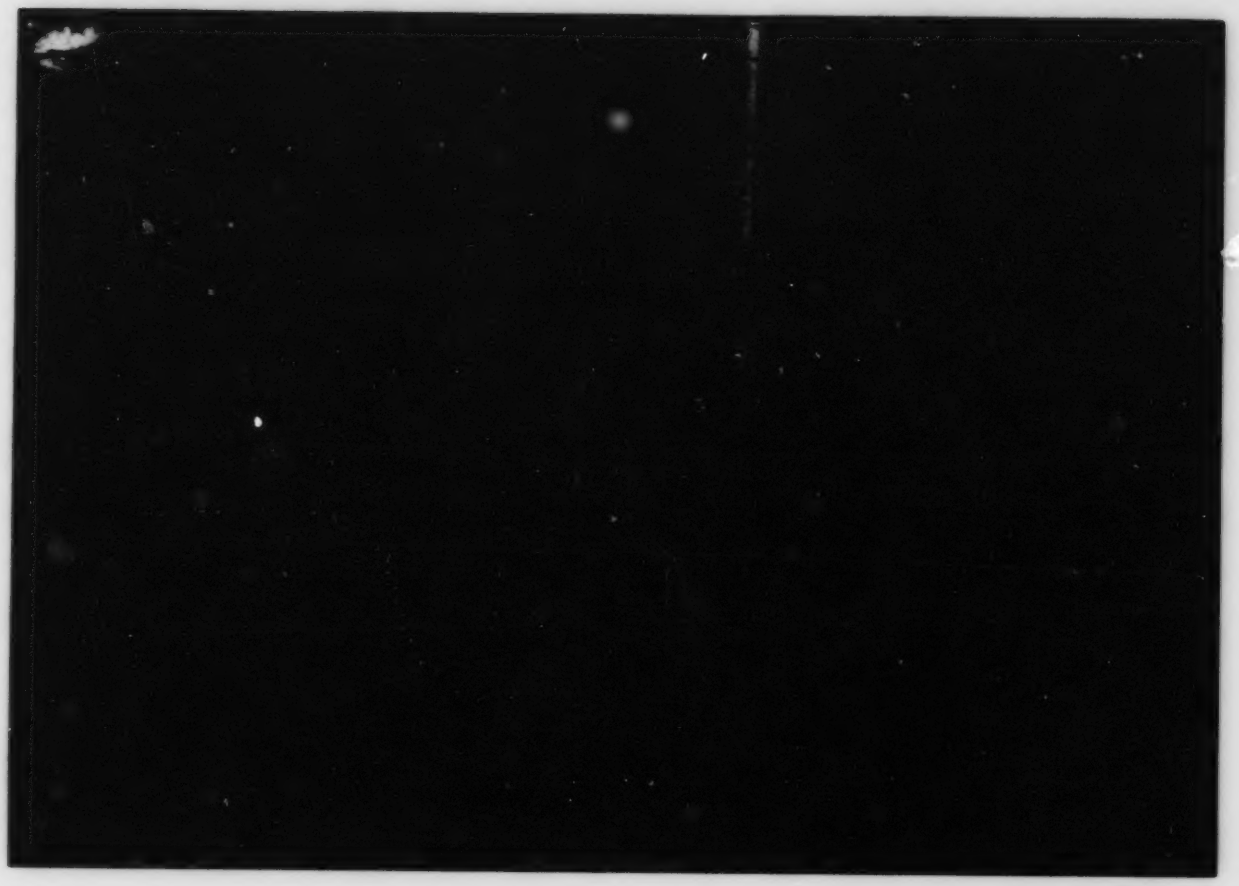
Shrubs

Acer spicatum
Cornus canadensis
Corylus cornuta
Populus tremuloides
Rubus parviflorus
Maianthemum canadense
Mitella nuda
Pyrola spp.
Rubus pubescens
Streptopus roseus
Trientalis borealis

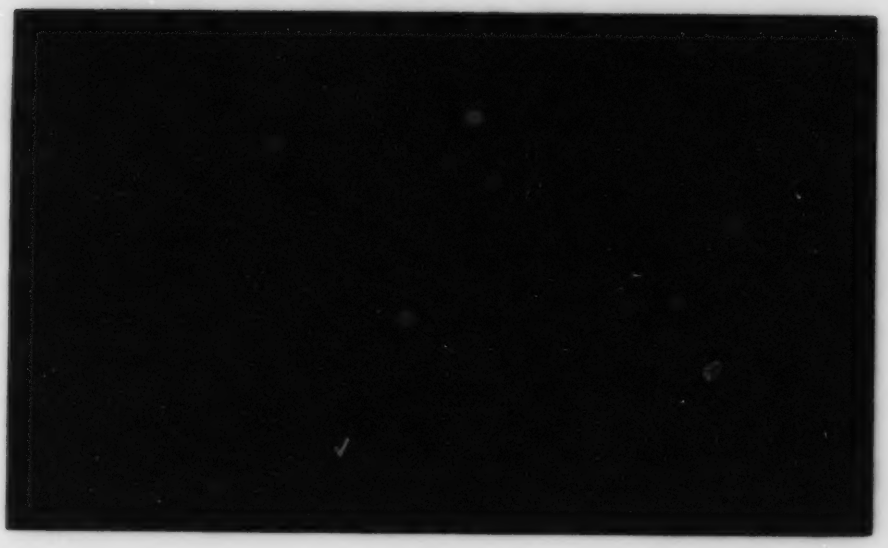
Herbs

Anemone quinquefolia
Aralia nudicaulis
Aster macrophylus
Clintonia borealis
Galium triflorum

Plate 6.



V6



STAND CLASSIFICATION

FEC Vegetation Type: V6
FEC Soils Type: S3
Forest Section: L.11

LOCATION

Latitude & longitude: 48°14'N,90°07'W
OMNR District: Thunder Bay
Plot number: 217

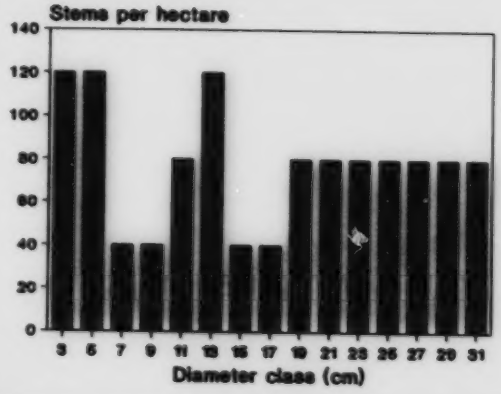
STAND CHARACTERISTICS

Overstory Composition: Poplar 62% White spruce 24% Balsam fir 14%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	24.5	16.0
Poplar	24.2	14.8

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.22	0-2 cm	0.72
3-7 cm	0.20		
≥ 7 cm	0.50	Total	0.72
Total	0.92		

Average forest-floor depth: 1.5 cm

Understory Vegetation

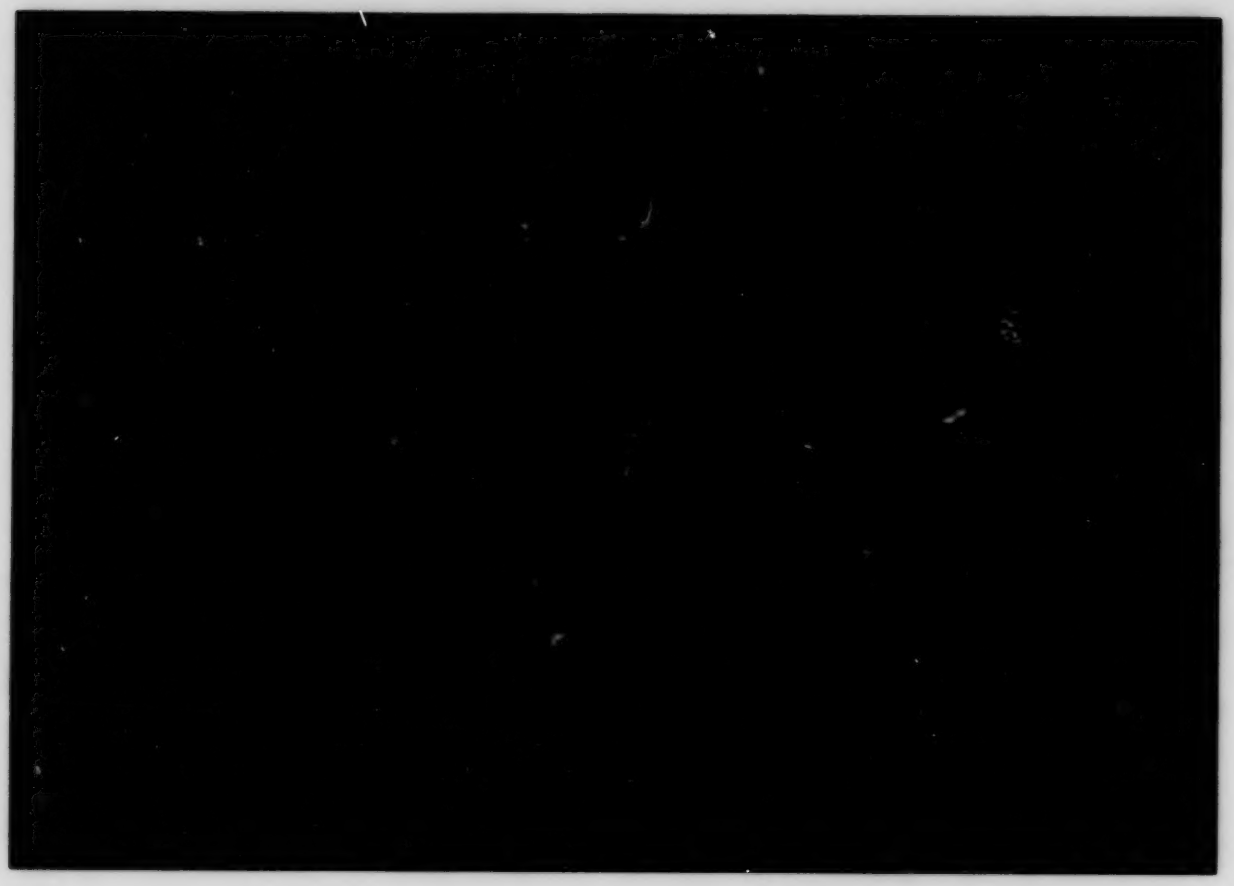
Shrubs

Acer spicatum
Amelanchier spp.
Betula papyrifera
Corylus cornuta
Diervilla lonicera
Lonicera canadensis
Populus tremuloides
Rosa acicularis
Rubus parviflorus
Vicia americana

Herbs

Actaea rubra
Aster macrophyllus
Clintonia borealis
Galium triflorum
Lycopodium clavatum
Lycopodium obscurum
Rubus pubescens
Streptopus roseus
Trientalis borealis

Plate 7.



V6

STAND CLASSIFICATION

FEC Vegetation Type: V6
FEC Soils Type: S6
Forest Section: B.4

LOCATION

Latitude & longitude: 49°19'N,81°18'W
OMNR District: Cochrane
Plot number: 261

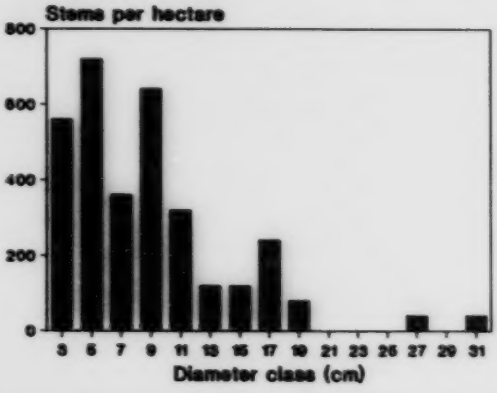
STAND CHARACTERISTICS

Overstory Composition: White birch 67% Balsam fir 22% Poplar 11%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	18.2	9.5
White birch	14.5	8.0
Balsam fir	16.5	12.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.31	0-2 cm	0.62
3-7 cm	0.06	2-4 cm	1.46
≥ 7 cm	1.43	4-6 cm	1.03
		6-8 cm	0.62
Total	1.80	8-10 cm	0.34
		Total	4.07

Average forest-floor depth: 5.2 cm

Understory Vegetation

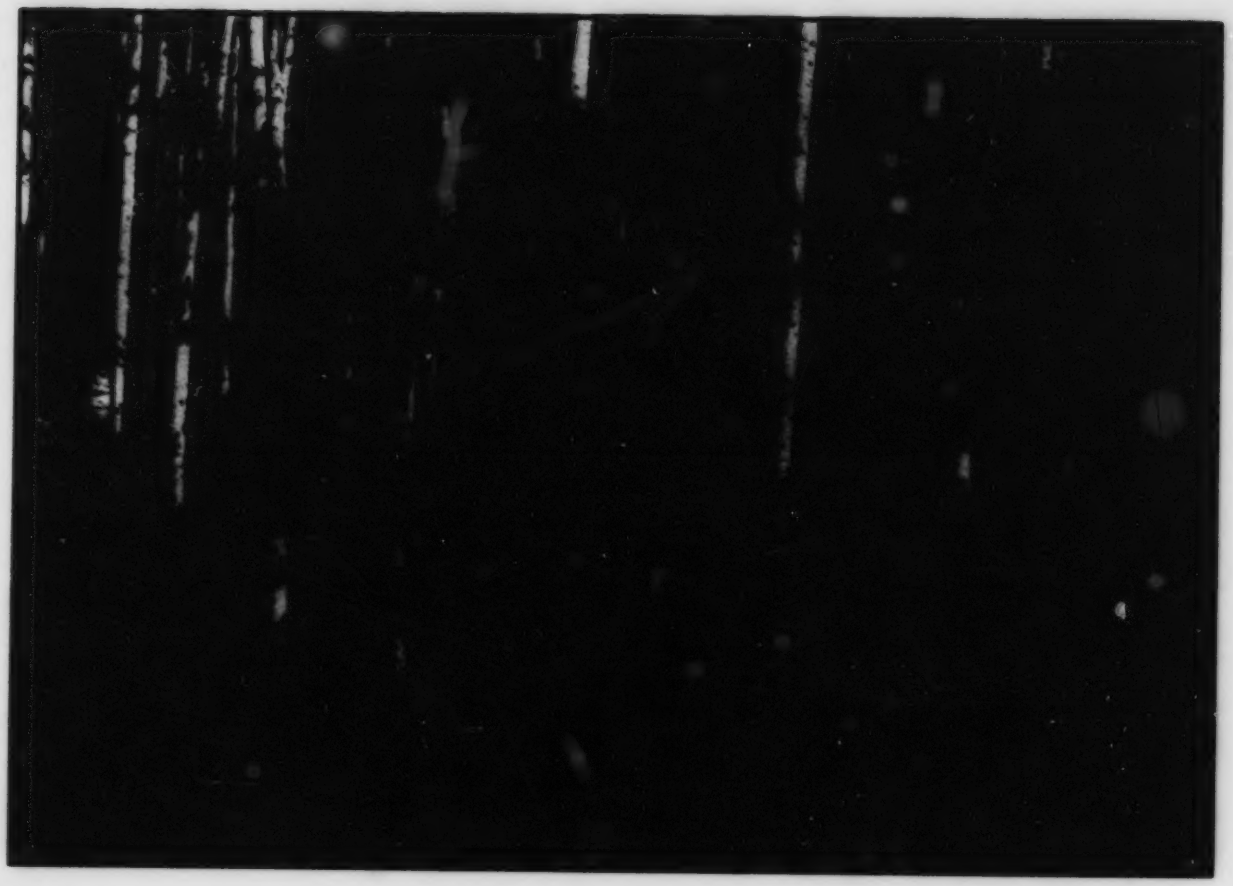
Shrubs

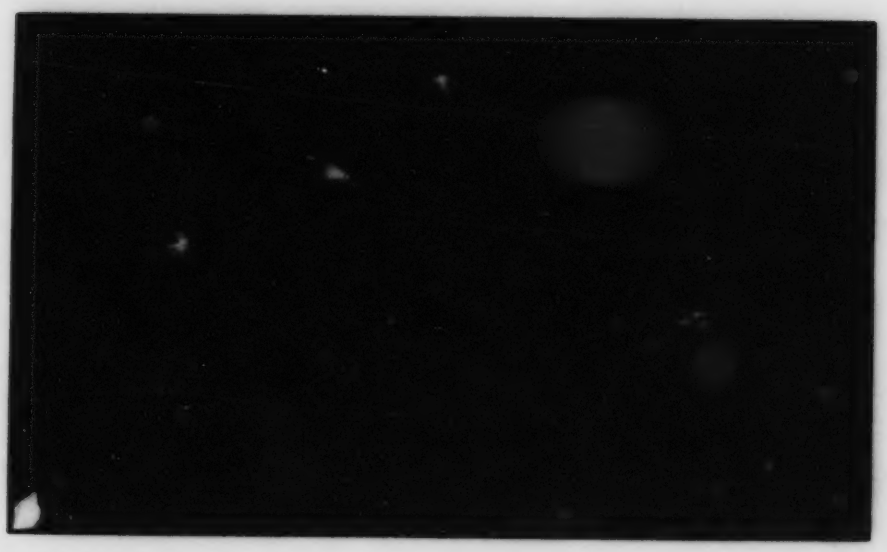
Abies balsamea
Acer spicatum
Corylus cornuta
Ribes spp.
Rosa acicularis
Lycopodium obscurum
Mitella nuda
Streptopus roseus

Herbs

Aralia nudicaulis
Aster macrophylus
Clintonia borealis
fern spp.
Galium triflorum

Plate 8.





V7

STAND CLASSIFICATION

FEC Vegetation Type: V7
FEC Soils Type: S2
Forest Section: B.7

LOCATION

Latitude & longitude: 47°46'N,82°33'W
OMNR District: Chapleau
Plot number: 13

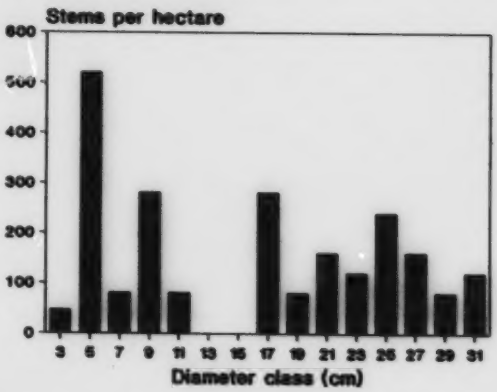
STAND CHARACTERISTICS

Overstory Composition: Poplar 50% White birch 32% Balsam fir 9% White spruce 9%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	26.0	15.0
White birch	18.0	12.0
Balsam fir	22.0	0.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.14	0-2 cm	0.54
3-7 cm	0.07	2-4 cm	0.70
≥ 7 cm	1.35	4-6 cm	0.26
Total	1.56	Total	1.50

Average forest-floor depth: 4.2 cm

Understory Vegetation

Shrubs

Cornus canadensis
Corylus cornuta
Diervilla lonicera
Prunus pensylvanica
Vaccinium spp.

Herbs

Clintonia borealis
Epilobium angustifolium
Lycopodium obscurum

Plate 9.

V7

STAND CLASSIFICATION

FEC Vegetation Type: V7
FEC Soils Type: SS3
Forest Section: L.11

LOCATION

Latitude & longitude: 48°11'N,90°05'W
OMNR District: Thunder Bay
Plot number: 212

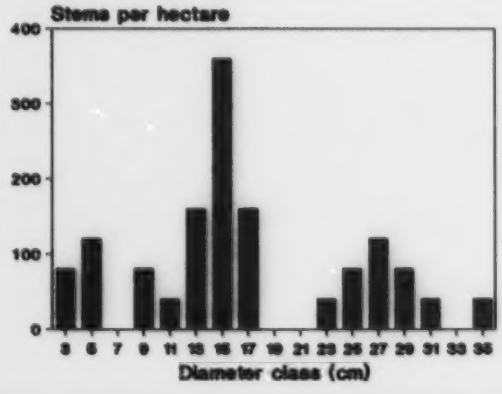
STAND CHARACTERISTICS

Overstory Composition: Poplar 47% White birch 41% Balsam fir 12%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	19.0	11.0
Balsam fir	17.0	9.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.34	0-2 cm	0.38
3-7 cm	0.18	2-4 cm	1.01
≥ 7 cm	1.11	4-6 cm	0.92
Total	1.63	Total	2.31

Average forest-floor depth: 4.7 cm

Understory Vegetation

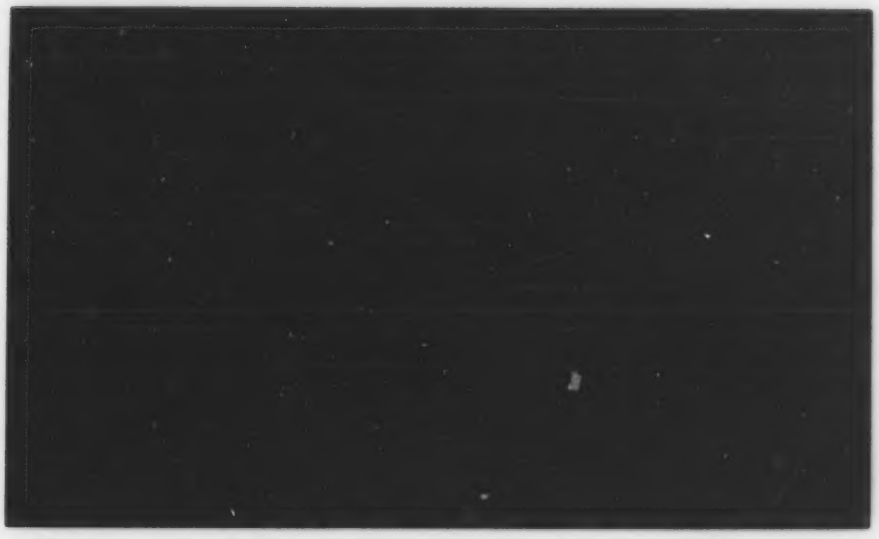
Shrubs

Alnus crispa
Amelanchier spp.
Cornus rugosa
Corylus cornuta
Diervilla lonicera
Rubus parviflorus
Maianthemum canadense
Rubus pubescens
Streptopus roseus
Vicia americana

Herbs

Apocynum androsaemifolium
Aster macrophylus
Clintonia borealis
feathermoss
Galium triflorum
graminoid spp.

Plate 10.



V8

STAND CLASSIFICATION

FEC Vegetation Type: V8
FEC Soils Type: S3
Forest Section: B.7

LOCATION

Latitude & longitude: 47°56'N,82°38'W
OMNR District: Chapleau
Plot number: 16

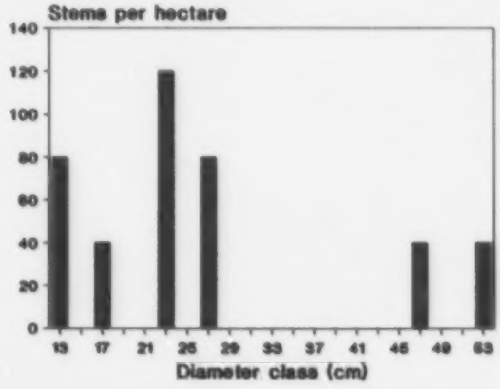
STAND CHARACTERISTICS

Overstory Composition: Poplar 43% White birch 43% Jack pine 14%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White birch	18.0	10.0
White birch	12.0	8.0
Jack pine	20.0	13.0
Jack pine	22.0	13.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.40	0-2 cm	0.95
3-7 cm	0.17	2-4 cm	1.68
≥ 7 cm	2.22	4-6 cm	2.49
		6-8 cm	0.92
Total	2.79	Total	6.04

Average forest-floor depth: 6.9 cm

Understory Vegetation

Shrubs

Acer spicatum
Alnus crispa
Betula papyrifera
Corylus cornuta

Herbs

Aster macrophyllus
Maianthemum canadense

Plate 11.

V8

STAND CLASSIFICATION

FEC Vegetation Type: V8
FEC Soils Type: SS6
Forest Section: B.9

LOCATION

Latitude & longitude: 48°42'N,89°06'W
OMNR District: Thunder Bay
Plot number: 196

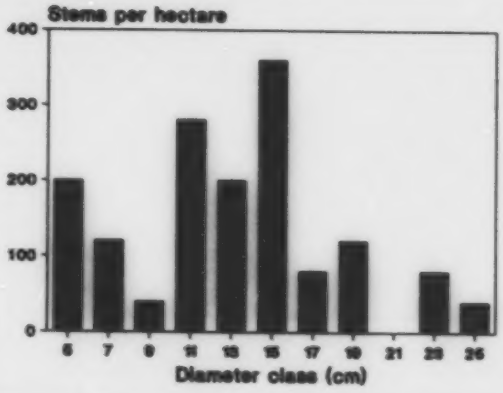
STAND CHARACTERISTICS

Overstory Composition: Poplar 58% White birch 42%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	20.0	14.0
Jack pine	17.0	5.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.30	0-2 cm	0.60
3-7 cm	0.13	2-4 cm	1.47
≥ 7 cm	0.60	4-6 cm	1.17
		6-8 cm	1.01
Total	1.03	8-10 cm	0.75
		Total	5.00

Average forest-floor depth: 7.3 cm

Understory Vegetation

Shrubs

Acer spicatum
Alnus crispa
Alnus rugosa
Amelanchier spp.
Betula papyrifera
Cornus canadensis
Cornus stolonifera
Corylus cornuta
Diervilla lonicera
Populus spp.
Prunus pensylvanica
Rosa acicularis
Sorbus decora
Vaccinium spp.

Herbs

Aralia nudicaulis
Aster macrophyllus
Clintonia borealis
Epilobium angustifolium
feathermoss
graminoid spp.
Lycopodium annotinum
Petasites palmatus
Rubus pubescens
Vicia americana

Plate 12.

V8

STAND CLASSIFICATION

FEC Vegetation Type: V8
FEC Soils Type: S6
Forest Section: L.11

LOCATION

Latitude & longitude: 48°10'N,90°08'W
OMNR District: Thunder Bay
Plot number: 216

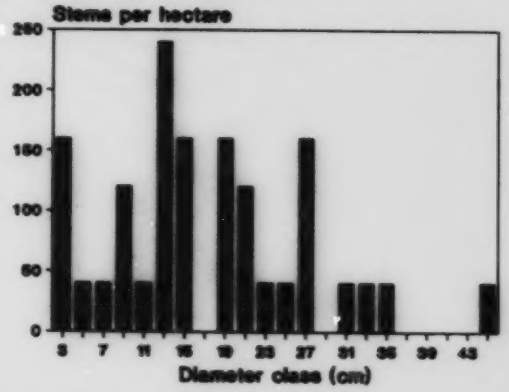
STAND CHARACTERISTICS

Overstory Composition: Poplar 60% White Pine 16% White spruce 12% Balsam fir 8% White birch 4%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	22.0	13.0
White spruce	21.0	8.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.21	0-2 cm	0.42
3-7 cm	0.13	2-4 cm	1.62
≥ 7 cm	0.72	4-6 cm	1.14
		6-8 cm	0.62
Total	1.06	8-10 cm	0.47
		Total	4.27

Average forest-floor depth: 5.6 cm

Understory Vegetation

Shrubs

Abies balsamea
Acer spicatum
Betula papyrifera
Corylus cornuta
Diervilla lonicera
Lonicera canadensis
Populus spp.
Rosa acicularis
Rubus parviflorus

Herbs

Apocynum androsaemifolium
Aralia nudicaulis
Aster macrophyllus
fern spp.
Maianthemum canadense
Rubus pubescens
Vicia americana
Viola spp.

Plate 13.

V8

STAND CLASSIFICATION

FEC Vegetation Type: V8
FEC Soils Type: SS2
Forest Section: L.11

LOCATION

Latitude & longitude: 49°29'N,94°04'W
OMNR District: Kenora
Plot number: 70

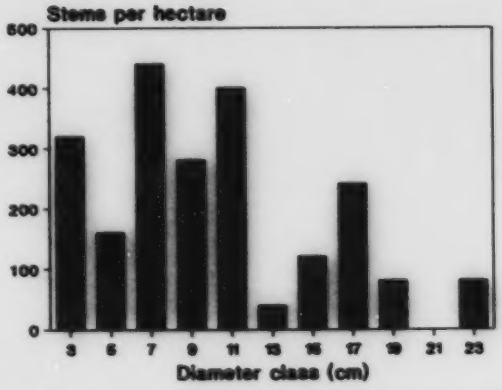
STAND CHARACTERISTICS

Overstory Composition: White birch 42% Poplar 26% Balsam fir 16% Jack pine 11% Black spruce 5%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	18.0	10.0
Poplar	24.0	14.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.28	0-2 cm	0.36
3-7 cm	0.34	2-4 cm	0.73
≥ 7 cm	1.12	4-6 cm	1.20
		6-8 cm	0.45
Total	1.74	8-10 cm	0.21
		Total	2.95

Average forest-floor depth: 7.3 cm

Understory Vegetation

Shrubs

Abies balsamea
Acer rubrum
Amelanchier spp.
Betula papyrifera
Corylus cornuta
Diervilla lonicera
Rosa acicularis
Vaccinium spp.

Herbs

Aralia nudicaulis
Aster macrophyllus
fern spp.
Fragaria virginiana
Maianthemum canadense
Vicia americana

Plate 14.

V9

STAND CLASSIFICATION

FEC Vegetation Type: V9
FEC Soils Type: S3
Forest Section: L.11

LOCATION

Latitude & longitude: 48°14'N,90°07'W
OMNR District: Thunder Bay
Plot number: 215

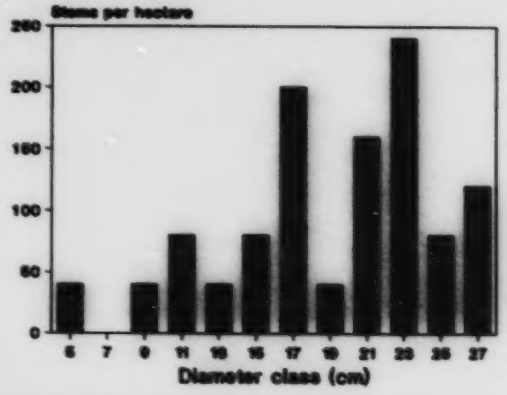
STAND CHARACTERISTICS

Overstory Composition: White birch 42% Poplar 42% Balsam fir 16%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White birch	20.5	14.5
Poplar	28.5	15.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.29	0-2 cm	0.74
3-7 cm	0.22	2-4 cm	0.71
≥ 7 cm	1.04	4-6 cm	0.51
Total	1.55	Total	1.96

Average forest-floor depth: 3.5 cm

Understory Vegetation

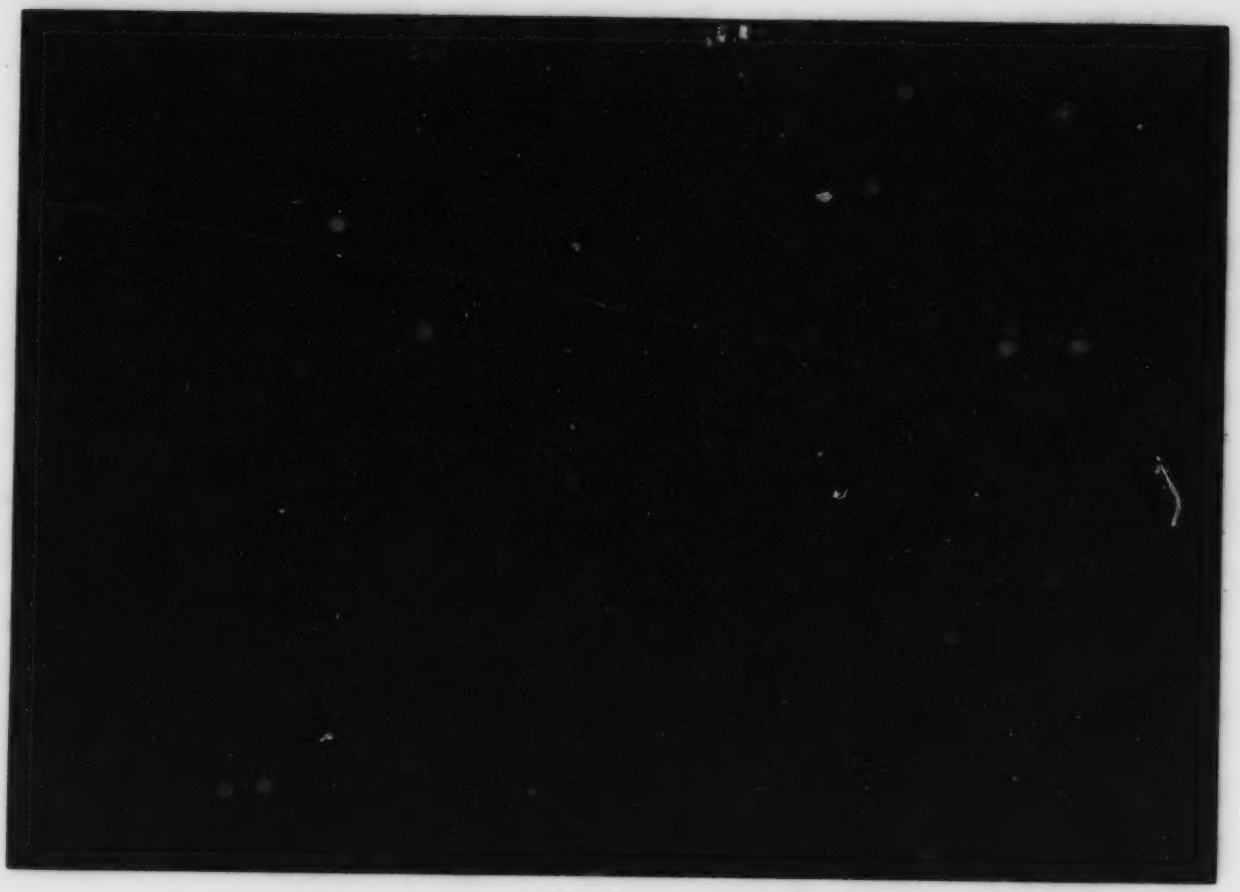
Shrubs

Abies balsamea
Acer spicatum
Corylus cornuta
Rubus parviflorus
Lycopodium annotinum
Lycopodium clavatum
Lycopodium obscurum
Maianthemum canadense
Mitella nuda
Rubus pubescens
Streptopus roseus
Viola spp.

Herbs

Aralia nudicaulis
Clintonia borealis
feathermoss
graminoid spp.

Plate 15.



V10

STAND CLASSIFICATION

FEC Vegetation Type: V10
FEC Soils Type: SS6
Forest Section: B.11

LOCATION

Latitude & longitude: 49°27'N,91°49'W
OMNR District: Ignace
Plot number: 166

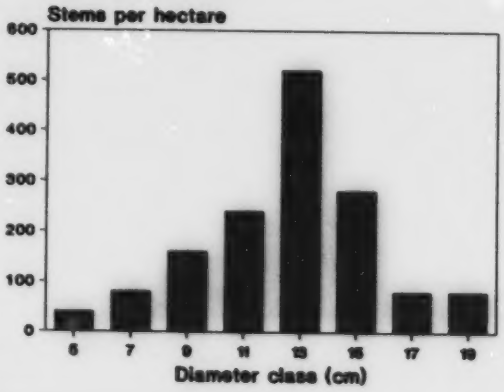
STAND CHARACTERISTICS

Overstory Composition: Jack pine 69% Poplar 23% Black spruce 8%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	17.0	11.0
Poplar	13.0	10.0
Black spruce	15.0	2.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.24	0-2 cm	0.47
3-7 cm	0.21	2-4 cm	1.00
≥ 7 cm	0.65	4-6 cm	0.39
		6-8 cm	0.46
Total	1.10	8-10 cm	0.41
		Total	2.73

Average forest-floor depth: 6.9 cm

Understory Vegetation

Shrubs

Alnus crispa
Chimaphila umbellata
Cornus canadensis
Diervilla lonicera
Linnaea borealis
Populus spp.
Salix spp.
Vaccinium spp.

Herbs

Aralia nudicaulis
feathermoss
Maianthemum canadense

Plate 16.

V10

STAND CLASSIFICATION

FEC Vegetation Type: V10
FEC Soils Type: SS6
Forest Section: B.9

LOCATION

Latitude & longitude: 48°47'N,89°06'W
OMNR District: Thunder Bay
Plot number: 188

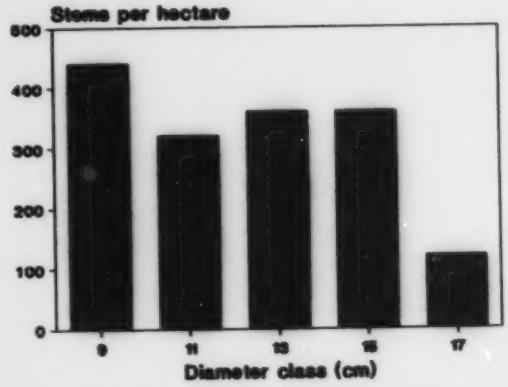
STAND CHARACTERISTICS

Overstory Composition: Poplar 70% Black spruce 20% Jack pine 10%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	19.0	9.0
Black spruce	17.0	1.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.30	0-2 cm	0.59
3-7 cm	0.26	2-4 cm	1.10
≥ 7 cm	0.87	4-6 cm	1.08
		6-8 cm	0.76
Total	1.43	8-10 cm	0.63
		Total	4.16

Average forest-floor depth: 7.6 cm

Understory Vegetation

Shrubs

Alnus crispa
Amelanchier spp.
Betula papyrifera
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Picea mariana
Prunus spp.
Rosa acicularis
Vaccinium spp.

Herbs

Aralia nudicaulis
Aster macrophyllus
Clintonia borealis
Coptis trifolia
Epilobium angustifolium
feathermoss
Lycopodium clavatum

Plate 17.

V10

STAND CLASSIFICATION

FEC Vegetation Type: V10
FEC Soils Type: SS5
Forest Section: L.11

LOCATION

Latitude & longitude: 48°05'N,89°47'W
OMNR District: Thunder Bay
Plot number: 189

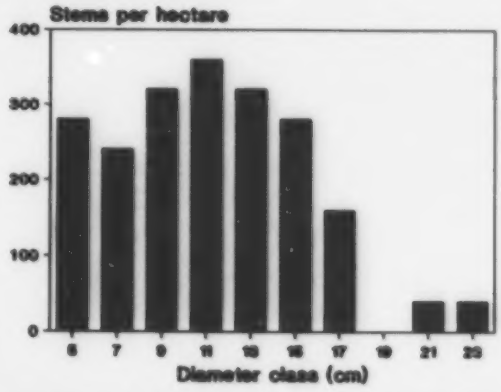
STAND CHARACTERISTICS

Overstory Composition: White birch 36% Poplar 36% Jack pine 20% Black spruce 8%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	15.5	11.5
White birch	11.2	4.2
Jack pine	15.5	10.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.19	0-2 cm	0.87
3-7 cm	0.15	2-4 cm	1.29
≥ 7 cm	0.33	4-6 cm	1.26
		6-8 cm	0.59
Total	0.67	Total	4.01

Average forest-floor depth: 6.5 cm

Understory Vegetation

Shrubs

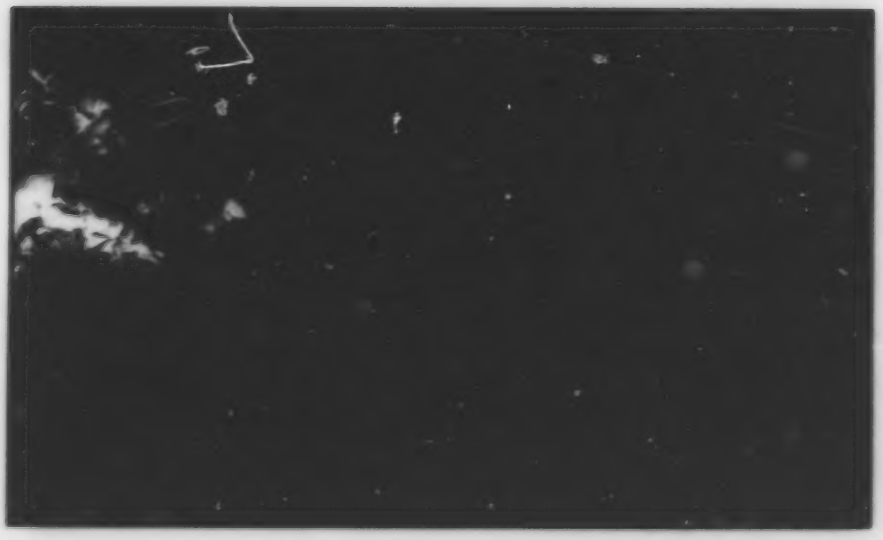
Alnus crispa
Betula papyrifera
Cornus canadensis
Linnaea borealis
Populus tremuloides
Ribes spp.
Salix spp.
Sorbus americana

Herbs

Aster macrophyllus
Epilobium angustifolium
feathermoss
Fragaria virginiana
graminoid spp.

Plate 18.

V11



STAND CLASSIFICATION

FEC Vegetation Type: V11
FEC Soils Type: S3
Forest Section: B.14

LOCATION

Latitude & longitude: 49°57'N,93°30'W
OMNR District: Dryden
Plot number: 110

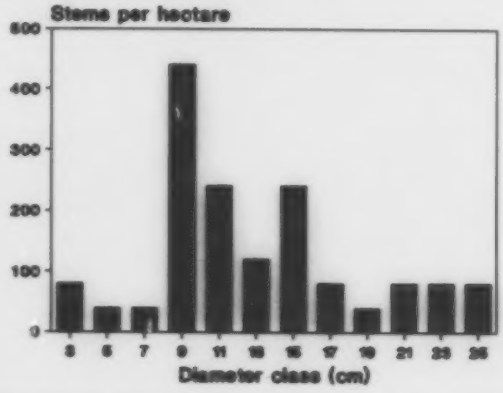
STAND CHARACTERISTICS

Overstory Composition: Poplar 42% Black spruce 42% Balsam fir 11% White birch 5%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	18.5	14.5
Poplar	23.5	12.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.61	0-2 cm	0.91
3-7 cm	0.62	2-4 cm	1.34
≥ 7 cm	2.34	4-6 cm	0.92
		6-8 cm	0.84
Total	3.57	8-10 cm	0.94
		Total	4.95

Average forest-floor depth: 7.2 cm

Understory Vegetation

Shrubs

Alnus rugosa
Cornus canadensis
Diervilla lonicera
Populus spp.
Vaccinium spp.
graminoid spp.
Lycopodium obscurum
Maianthemum canadense
Petasites palmatus
Rubus pubescens
Trientalis borealis

Herbs

Aralia nudicaulis
Aster macrophyllus
Clintonia borealis
feathermoss
Fern spp.

Plate 19.

V11

STAND CLASSIFICATION

FEC Vegetation Type: V11
FEC Soils Type: S1
Forest Section: L.11

LOCATION

Latitude & longitude: 49°28'N,91°56'W
OMNR District: Ignace
Plot number: 168

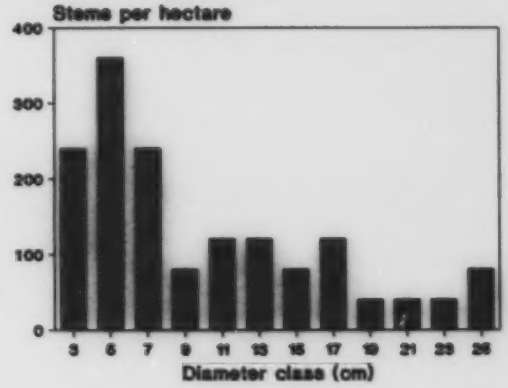
STAND CHARACTERISTICS

Overstory Composition: Jack pine 52% White birch 22% Poplar 22% Black spruce 4%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White birch	17.0	10.0
Jack pine	21.0	12.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.20	0-2 cm	0.57
3-7 cm	0.24	2-4 cm	1.36
≥ 7 cm	0.60		
Total	1.04	Total	1.93

Average forest-floor depth: 3.8 cm

Understory Vegetation

Shrubs

Abies balsamea
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Gaultheria procumbens
Picea mariana
Sorbus decora
Vaccinium spp.

Herbs

Aralia nudicaulis
Cladina rangiferina
feathermoss
Lycopodium clavatum
Maianthemum canadense

Plate 20.

V12

STAND CLASSIFICATION

FEC Vegetation Type: V12
FEC Soils Type: S2
Forest Section: L.11

LOCATION

Latitude & longitude: 49°43'N,93°55'W
OMNR District: Kenora
Plot number: 82

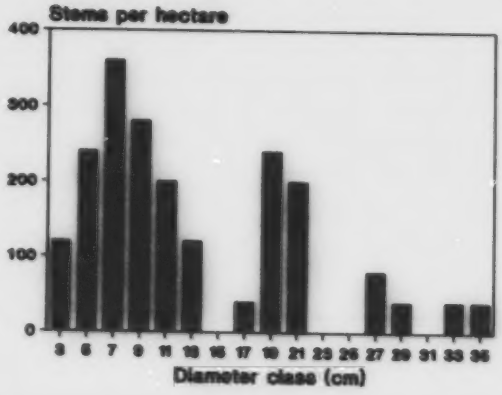
STAND CHARACTERISTICS

Overstory Composition: White pine 42% Striped maple 27% Poplar 15% Balsam fir 8% Jack pine 8%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White Pine	24.0	12.0
White Pine	26.0	15.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.30	0-2 cm	0.54
3-7 cm	0.39	2-4 cm	0.85
≥ 7 cm	0.90	4-6 cm	0.72
		6-8 cm	0.37
Total	1.59	Total	2.48

Average forest-floor depth: 5.2 cm

Understory Vegetation

Shrubs

Acer rubrum
Acer spicatum
Amelanchier spp.
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Vaccinium spp.

Herbs

Aralia nudicaulis
feathermoss
Lycopodium clavatum
Lycopodium obscurum

Plate 21.

V14

STAND CLASSIFICATION

FEC Vegetation Type: V14
FEC Soils Type: S6
Forest Section: B.11

LOCATION

Latitude & longitude: 49°39'N,91°17'W
OMNR District: Ignace
Plot number: 148

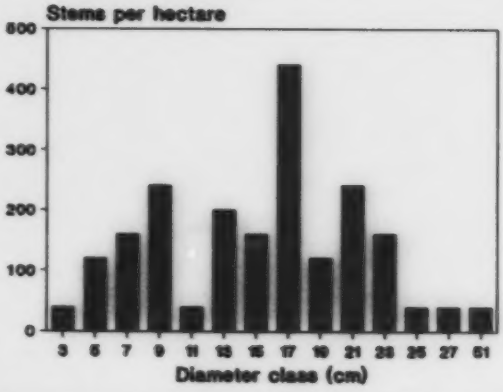
STAND CHARACTERISTICS

Overstory Composition: Balsam fir 64% White birch 24% Poplar 12%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Balsam fir	13.0	6.0
Poplar	30.0	20.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.25	0-2 cm	0.78
3-7 cm	0.31	2-4 cm	1.31
≥ 7 cm	3.31	4-6 cm	1.55
		6-8 cm	1.15
Total	3.87	8-10 cm	0.49
		Total	5.28

Average forest-floor depth: 7.1 cm

Understory Vegetation

Shrubs

Abies balsamea
Acer spicatum
Betula papyrifera
Corylus cornuta
Populus spp.
fern spp.
graminoid spp.
Maianthemum canadense
Mitella nuda
Petasites palmatus
Rubus pubescens

Herbs

Aralia nudicaulis
Aster macrophyllus
Clintonia borealis
Coptis trifolia
feathermoss

Plate 22.

V14

STAND CLASSIFICATION

FEC Vegetation Type: V14
FEC Soils Type: S3
Forest Section: L.11

LOCATION

Latitude & longitude: 48°14'N,90°06'W
OMNR District: Thunder Bay
Plot number: 219

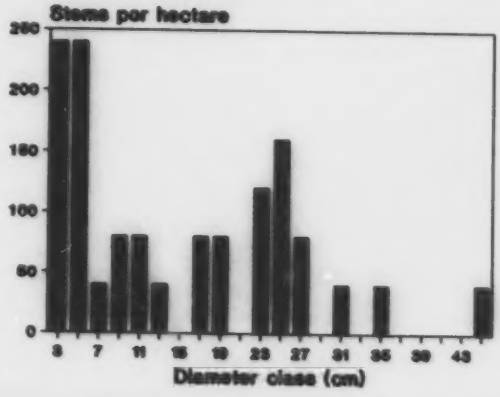
STAND CHARACTERISTICS

Overstory Composition: White birch 37% Balsam fir 26% Jack pine 16% White spruce 11% White pine 5% Poplar 5%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	18.2	9.5
Balsam fir	15.8	7.0
White birch	16.2	9.5
Jack pine	17.2	12.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.22	0-2 cm	0.39
3-7 cm	0.28		
≥ 7 cm	1.32	Total	0.39
Total	1.82		

Average forest-floor depth: 0.9 cm

Understory Vegetation

Shrubs

Abies balsamea
Acer spicatum
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Populus tremuloides
Rubus parviflorus

Herbs

Aralia nudicaulis
Aster macrophyllus
Clintonia borealis
feathermoss
Maianthemum canadense
Streptopus roseus

Plate 23.

V14

STAND CLASSIFICATION

FEC Vegetation Type: V14
FEC Soils Type: S10
Forest Section: L.11

LOCATION

Latitude & longitude: 48°14'N,90°05'W
OMNR District: Thunder Bay
Plot number: 220

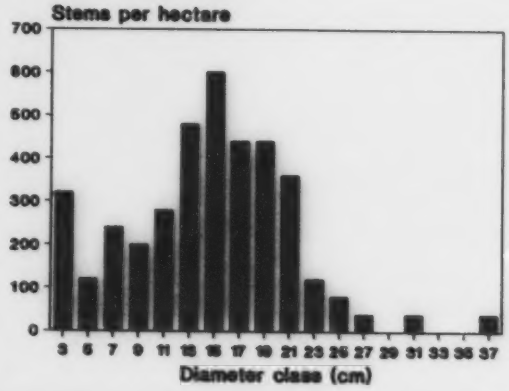
STAND CHARACTERISTICS

Overstory Composition: Balsam fir 42% Poplar 33% White spruce 16% White birch 9%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Balsam fir	18.0	9.0
Poplar	25.0	16.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.34	0-2 cm	0.90
3-7 cm	0.34	2-4 cm	1.03
≥ 7 cm	1.47	4-6 cm	0.31
Total	2.15	Total	2.24

Average forest-floor depth: 3.3 cm

Understory Vegetation

Shrubs

Abies balsamea
Alnus rugosa
Betula papyrifera
Cornus canadensis
Diervilla lonicera
Linnaea borealis
Populus spp.
Rosa acicularis
Rubus parviflorus
Vaccinium spp.
Maianthemum canadense
Petasites palmatus
Rubus pubescens
Trientalis borealis

Herbs

Anemone quinquefolia
Aralia nudicaulis
Aster macrophyllus
Equisetum silvaticum
feathermoss
fern spp.
Galium triflorum
graminoid spp.
Lycopodium annotinum
Lycopodium complanatum

Plate 24.

V14

STAND CLASSIFICATION

FEC Vegetation Type: V14
FEC Soils Type: S6
Forest Section: B.4

LOCATION

Latitude & longitude: 49°15'N,81°16'W
OMNR District: Cochrane
Plot number: 271

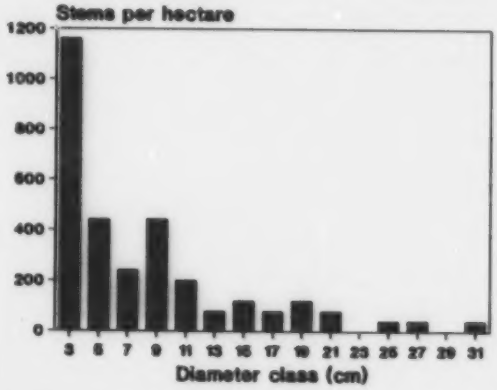
STAND CHARACTERISTICS

Overstory Composition: Balsam fir 50% White birch 17% White spruce 16% Black spruce 10% Poplar 7%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Balsam fir	13.0	4.0
White spruce	21.0	8.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.24	0-2 cm	0.86
3-7 cm	0.12	2-4 cm	1.11
≥ 7 cm	0.43	4-6 cm	1.29
		6-8 cm	1.43
Total	0.79	8-10 cm	1.66
		Total	6.35

Average forest-floor depth: 19.0 cm

Understory Vegetation

Shrubs

Abies balsamea
Acer spicatum
Alnus rugosa
Betula papyrifera
Cornus canadensis
Diervilla lonicera
Linnaea borealis
Picea glauca
Picea mariana
Ribes spp.
Rubus idaeus
Sorbus americana
Vaccinium spp.

Herbs

Aralia nudicaulis
Clintonia borealis
Coptis trifolia
feathermoss
Lycopodium annotinum
Mitella nuda
Rubus pubescens
Viola spp.

Plate 25.

V15

STAND CLASSIFICATION

FEC Vegetation Type: V15
FEC Soils Type: S3
Forest Section: B.7

LOCATION

Latitude & longitude: 47°39'N,83°16'W
OMNR District: Chapleau
Plot number: 55

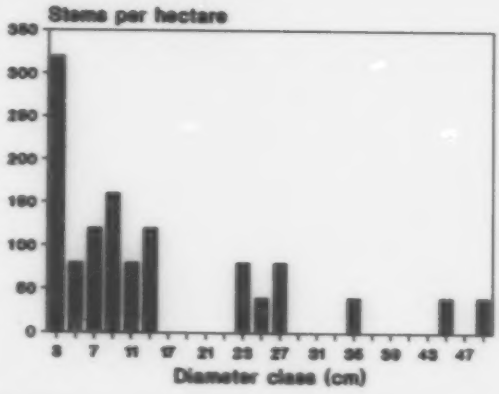
STAND CHARACTERISTICS

Overstory Composition: Black spruce 44% Balsam fir 39% White spruce 17%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White spruce	26.0	4.0
Balsam fir	22.0	4.0
White birch	19.0	8.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.29	0-2 cm	1.01
3-7 cm	0.24	2-4 cm	0.72
≥ 7 cm	2.00	4-6 cm	1.70
		6-8 cm	1.34
Total	2.53	8-10 cm	0.61
		Total	5.38

Average forest-floor depth: 7.7 cm

Understory Vegetation

Shrubs

Abies balsamea
Alnus rugosa
Cornus canadensis
Linnaea borealis
Picea mariana
Prunus pensylvanica
Ledum groenlandicum
Vaccinium spp.

Herbs

Aralia nudicaulis
feathermoss
Lycopodium obscurum
Maianthemum canadense
Sphagnum spp.

Plate 26.

V15

STAND CLASSIFICATION

FEC Vegetation Type: V15
FEC Soils Type: S6
Forest Section: B.4

LOCATION

Latitude & longitude: 49°16'N,81°18'W
OMNR District: Cochrane
Plot number: 263

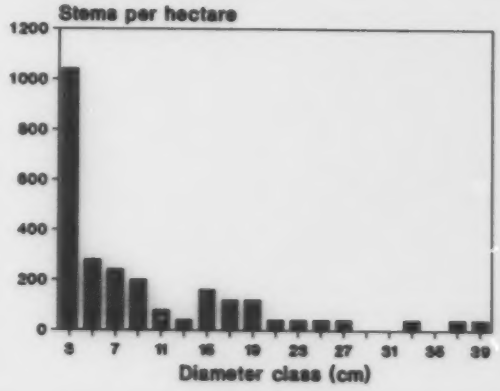
STAND CHARACTERISTICS

Overstory Composition: White birch 35% White spruce 35% Balsam fir 26% Black spruce 4%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White spruce	18.5	9.0
White birch	17.3	9.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.22	0-2 cm	1.19
3-7 cm	0.20	2-4 cm	1.55
≥ 7 cm	0.79	4-6 cm	1.74
		6-8 cm	1.61
Total	1.21	8-10 cm	2.00
		Total	8.09

Average forest-floor depth: 12.2 cm

Understory Vegetation

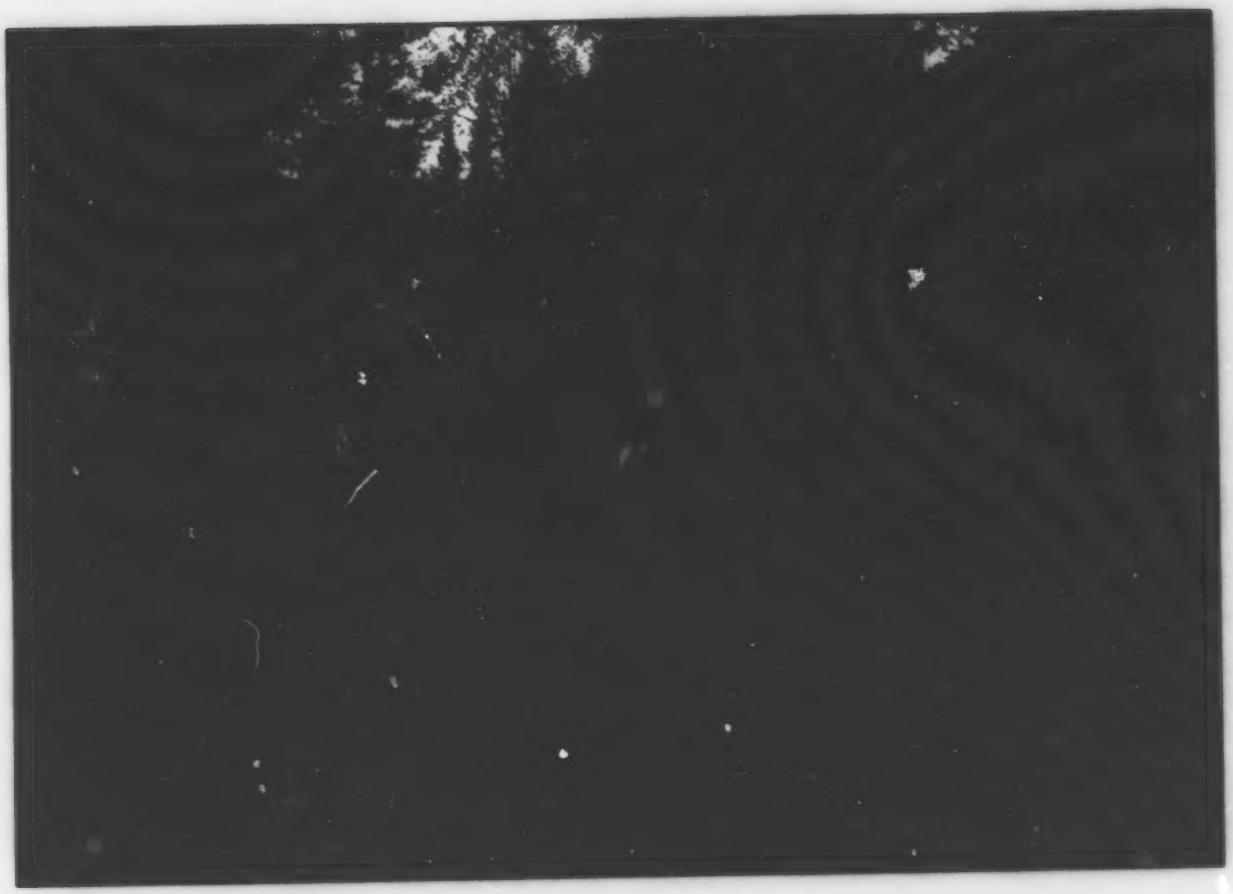
Shrubs

Abies balsamea
Acer spicatum
Alnus rugosa
Cornus canadensis
Corylus cornuta
Lonicera canadensis
Picea glauca
Ribes spp.
Sambucus pubens
Sorbus decora

Herbs

Clintonia borealis
Coptis trifolia
fern spp.
Fragaria virginiana
Galium triflorum
Lycopodium annotinum
Mitella nuda
Rubus pubescens
Streptopus roseus

Plate 27.



V16

STAND CLASSIFICATION

FEC Vegetation Type: V16
FEC Soils Type: S2
Forest Section: B.9

LOCATION

Latitude & longitude: 48°43'N,89°21'W
OMNR District: Thunder Bay
Plot number: 201

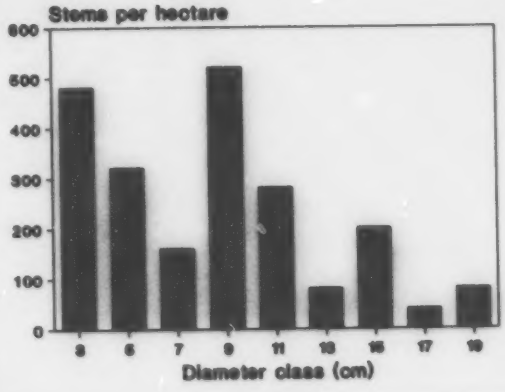
STAND CHARACTERISTICS

Overstory Composition: Balsam fir 36% Black spruce 32% Poplar 24% White birch 4% White spruce 4%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	15.5	8.5
Balsam fir	15.0	1.5
Black spruce	16.0	8.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.16	0-2 cm	0.17
3-7 cm	0.08	2-4 cm	0.19
≥ 7 cm	1.21	4-6 cm	0.40
		6-8 cm	0.45
Total	1.45	8-10 cm	0.64
		Total	1.85

Average forest-floor depth: 14.4 cm

Understory Vegetation

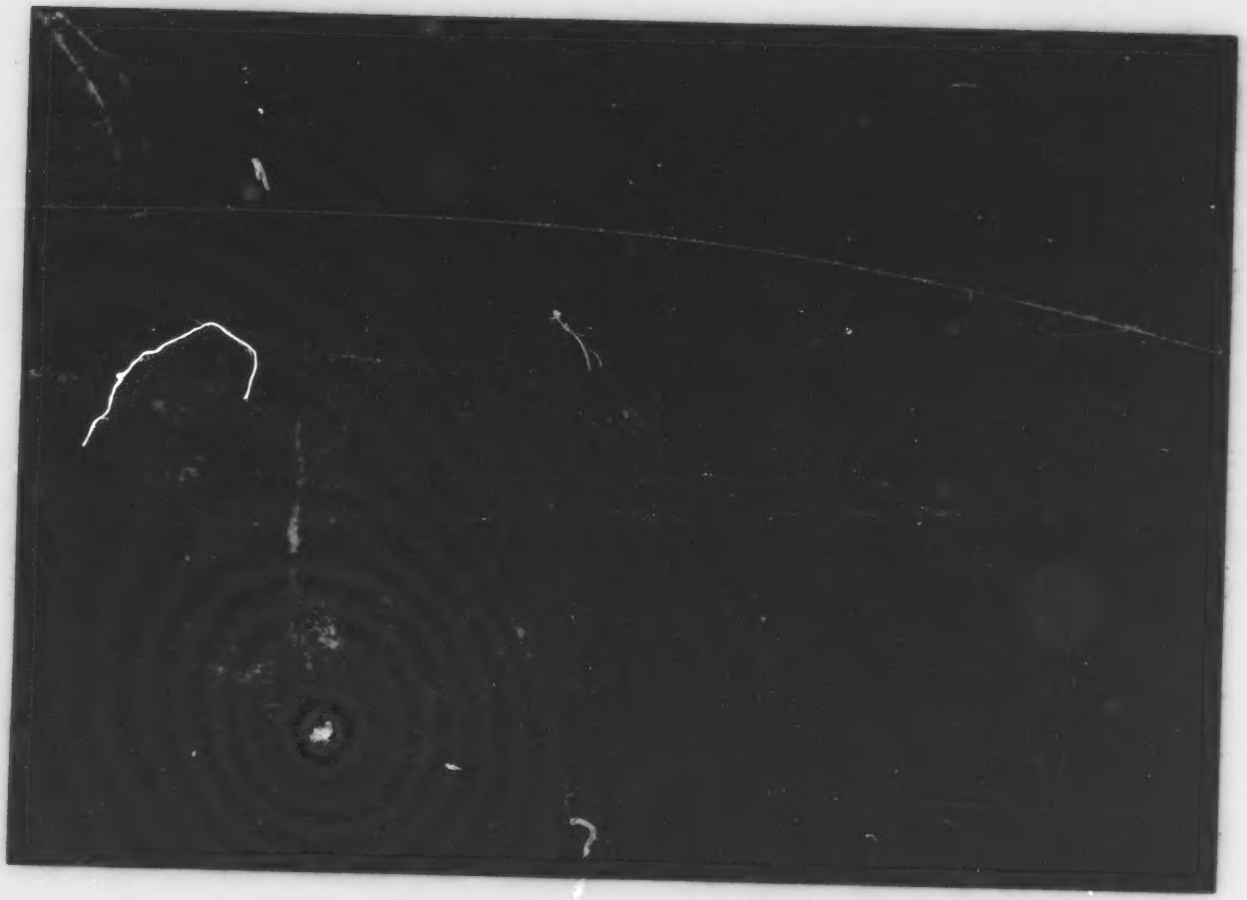
Shrubs

Abies balsamea
Alnus rugosa
Cornus canadensis
Gaultheria hispidula
Ledum groenlandicum
Picea mariana
Populus tremuloides
Rosa acicularis
Salix spp.
Sorbus decora

Herbs

Aralia nudicaulis
Epilobium angustifolium
feathermoss
Maianthemum canadense
Petasites palmatus
Viola renifolia

Plate 28.



V16

STAND CLASSIFICATION

FEC Vegetation Type: V16
FEC Soils Type: S6
Forest Section: B.4

LOCATION

Latitude & longitude: 49°15'N,81°16'W
OMNR District: Cochrane
Plot number: 269

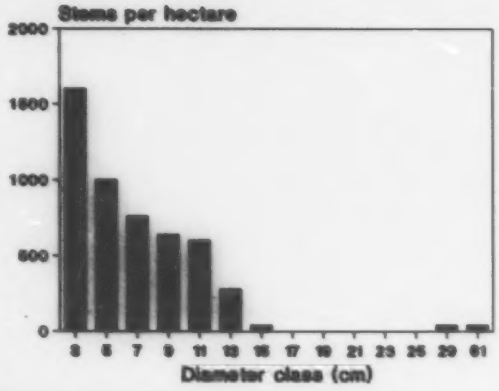
STAND CHARACTERISTICS

Overstory Composition: Balsam fir 40% Black spruce 24% Poplar 16%
White birch 12% White spruce 8%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White spruce	17.5	10.0
White spruce	21.0	10.0
Balsam fir	12.0	4.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.13	0-2 cm	0.75
3-7 cm	0.14	2-4 cm	0.88
≥ 7 cm	0.35	4-6 cm	1.21
		6-8 cm	1.19
Total	0.62	8-10 cm	1.81
		Total	5.84

Average forest-floor depth: 26.3 cm

Understory Vegetation

Shrubs

Abies balsamea
Alnus rugosa
Cornus canadensis
Cornus rugosa
Diervilla lonicera
Linnaea borealis
Lonicera canadensis
Lonicera hirsuta
Prunus virginiana
Ribes spp.
Rosa acicularis

Herbs

Aralia nudicaulis
Aster macrophyllus
Cladina rangiferina
Coptis trifolia
feathermoss
Galium triflorum
graminoid spp.
Mitella nuda
Rubus pubescens

Plate 29.

V17

STAND CLASSIFICATION

FEC Vegetation Type: V17
FEC Soils Type: S7
Forest Section: B.7

LOCATION

Latitude & longitude: 47°56'N,82°37'W
OMNR District: Chapleau
Plot number: 30

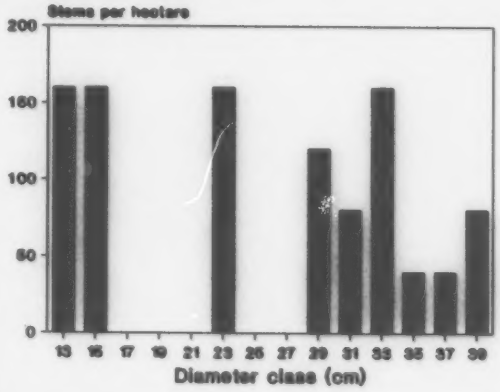
STAND CHARACTERISTICS

Overstory Composition: Jack pine 47% White birch 40% Black spruce 13%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	27.0	13.5
Jack pine	25.5	12.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.18	0-2 cm	0.65
3-7 cm	0.25	2-4 cm	1.00
≥ 7 cm	1.24	4-6 cm	1.02
		6-8 cm	0.96
Total	1.67	8-10 cm	1.18
		Total	4.81

Average forest-floor depth: 7.9 cm

Understory Vegetation

Shrubs

Acer spicatum
Alnus crispa
Betula papyrifera
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Gaultheria hispidula
Populus tremuloides
Sorbus americana
Vaccinium spp.

Herbs

Aralia nudicaulis
Aster macrophyllus
Clintonia borealis
Coptis trifolia
Maianthemum canadense
Pleurozium schreberi
Pteridium aquilinum
Streptopus roseus

Plate 30.

V18

STAND CLASSIFICATION

FEC Vegetation Type: V18
FEC Soils Type: SS6
Forest Section: L.11

LOCATION

Latitude & longitude: 49°28'N,94°04'W
OMNR District: Kenora
Plot number: 71

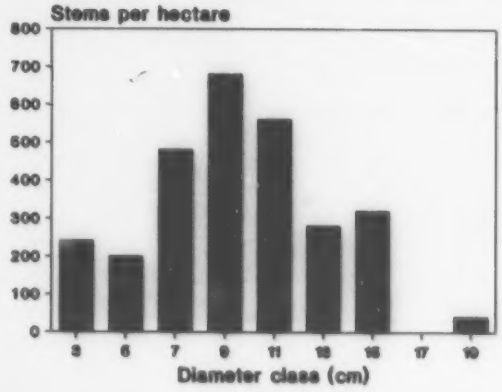
STAND CHARACTERISTICS

Overstory Composition: Jack pine 50% White birch 30% Black spruce 15% Poplar 5%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	17.0	9.0
Poplar	15.0	10.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.34	0-2 cm	0.43
3-7 cm	1.18	2-4 cm	0.86
≥ 7 cm	1.81	4-6 cm	1.01
		6-8 cm	0.94
Total	3.33	8-10 cm	0.72
		Total	3.96

Average forest-floor depth: 10.4 cm

Understory Vegetation

Shrubs

Abies balsamea
Betula papyrifera
Cornus canadensis
Diervilla lonicera
Gaultheria hispidula
Ledum groenlandicum
Populus spp.
Sorbus americana
Vaccinium spp.

Herbs

Aster macrophyllus
Cladina rangiferina
Clintonia borealis
feathermoss
Maianthemum canadense
Trientalis borealis

Plate 31.

V18

STAND CLASSIFICATION

FEC Vegetation Type: V18
FEC Soils Type: S1
Forest Section: L.11

LOCATION

Latitude & longitude: 49°05'N,94°05'W
OMNR District: Kenora
Plot number: 99

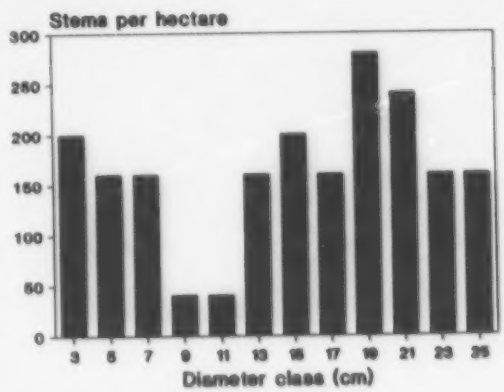
STAND CHARACTERISTICS

Overstory Composition: Jack pine 52% Black spruce 18% Balsam fir 17% White birch 13%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	18.0	13.0
Jack pine	17.5	13.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.33	0-2 cm	0.61
3-7 cm	0.26	2-4 cm	0.59
≥ 7 cm	1.55	4-6 cm	0.97
		6-8 cm	0.43
Total	2.14	Total	2.60

Average forest-floor depth: 6.3 cm

Understory Vegetation

Shrubs

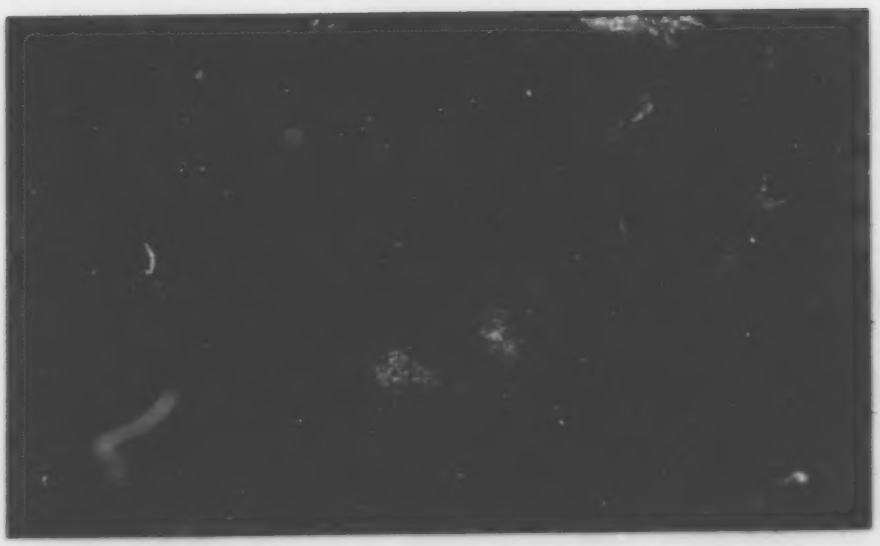
Alnus crispa
Corylus cornuta
Diervilla lonicera
Gaultheria procumbens
Vaccinium spp.

Herbs

Lycopodium clavatum
feathermoss
Maianthemum canadense
Melampyrum lineare

Plate 32.

V18



STAND CLASSIFICATION

FEC Vegetation Type: V18
FEC Soils Type: SS6
Forest Section: B.14

LOCATION

Latitude & longitude: 49°57'N,93°3[illegible]'W
OMNR District: Dryden
Plot number: 108

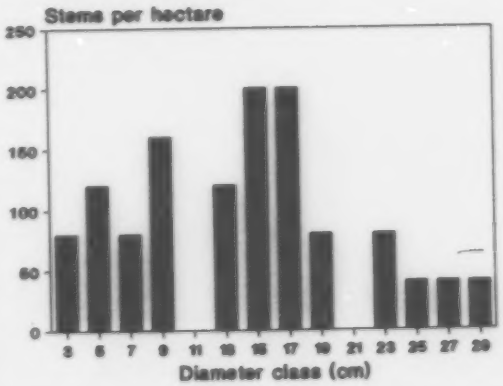
STAND CHARACTERISTICS

Overstory Composition: Black spruce 29% Jack pine 25% Red pine 21%
White birch 13% Poplar 8% Balsam fir 4%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Red Pine	15.0	4.0
Jack pine	14.0	6.0
White birch	12.0	4.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.18	0-2 cm	0.45
3-7 cm	0.10	2-4 cm	0.38
≥ 7 cm	0.34	4-6 cm	0.68
		6-8 cm	0.54
Total	0.62	Total	2.05

Average forest-floor depth: 5.0 cm

Understory Vegetation

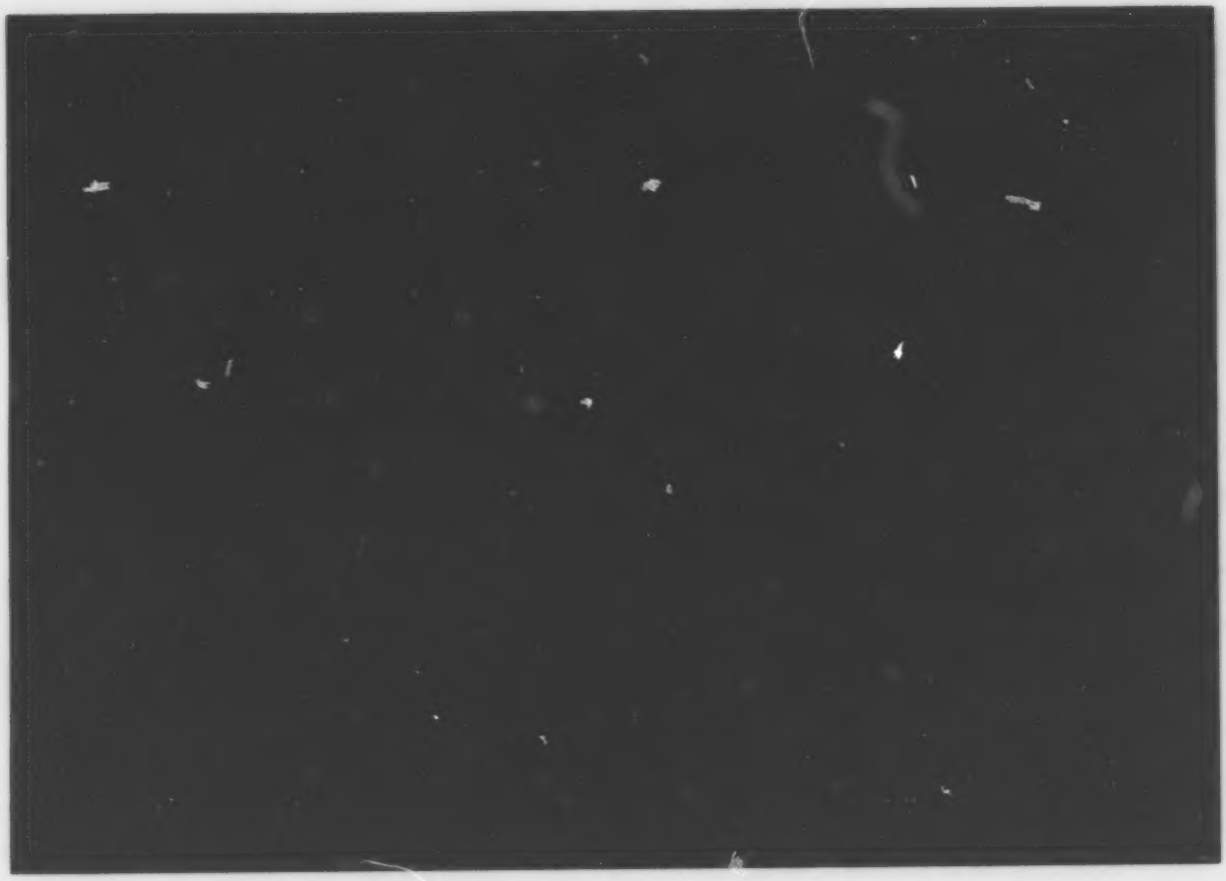
Shrubs

Abies balsamea
Alnus crispa
Betula papyrifera
Diervilla lonicera
Picea mariana
Prunus virginiana
Vaccinium spp.

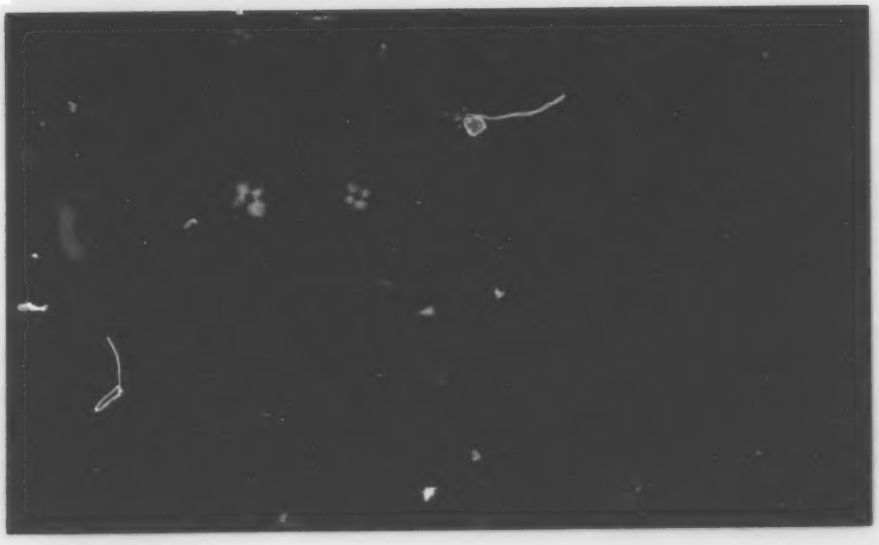
Herbs

Aralia nudicaulis
Cladina rangiferina
feathermoss
Maianthemum canadense

Plate 33.



V18



STAND CLASSIFICATION

FEC Vegetation Type: V18
FEC Soils Type: SS6
Forest Section: B.9

LOCATION

Latitude & longitude: 48°48'N,89°07'W
OMNR District: Thunder Bay
Plot number: 183

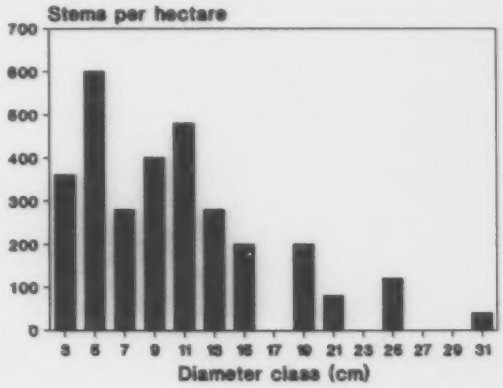
STAND CHARACTERISTICS

Overstory Composition: White birch 33% Balsam fir 23% Poplar 17%
Jack pine 14% Black spruce 13%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	20.5	17.0
Poplar	19.2	14.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.20	0-2 cm	0.72
3-7 cm	0.21	2-4 cm	1.22
≥ 7 cm	1.38	4-6 cm	1.57
		6-8 cm	1.63
Total	1.79	8-10 cm	1.25
		Total	6.39

Average forest-floor depth: 19.2 cm

Understory Vegetation

Shrubs

Abies balsamea
Alnus crispa
Betula papyrifera
Cornus canadensis
Diervilla lonicera
Linnea borealis
Populus spp.
Rosa acicularis
Viburnum edule
Rubus pubescens

Herbs

Aralia nudicaulis
Aster macrophyllus
Coptis trifolia
feathermoss
Fragaria virginiana
Galium triflorum
Maianthemum canadense
Mitella nuda
Petasites palmatus

Plate 34.

V18

STAND CLASSIFICATION

FEC Vegetation Type: V18
FEC Soils Type: S2
Forest Section: B.8

LOCATION

Latitude & longitude: 49°39'N,87°49'W
OMNR District: Nipigon
Plot number: 221

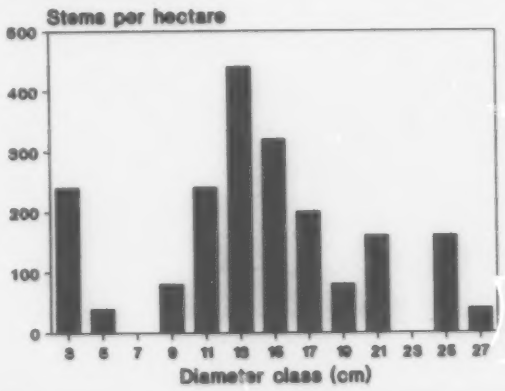
STAND CHARACTERISTICS

Overstory Composition: Jack pine 74% Black spruce 16% Poplar 10%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	15.5	10.0
Jack pine	14.0	11.8

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.13	0-2 cm	0.54
3-7 cm	0.18	2-4 cm	0.31
≥ 7 cm	0.36	4-6 cm	0.33
		6-8 cm	0.14
Total	0.67	Total	1.32

Average forest-floor depth: 4.7 cm

Understory Vegetation

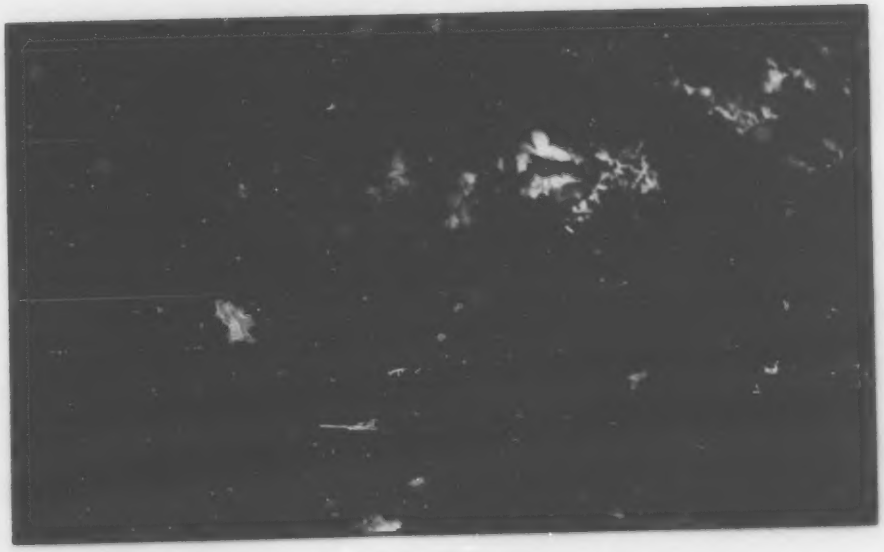
Shrubs

Arctostaphylos uva-ursi
Betula papyrifera
Cornus canadensis
Linnaea borealis
Picea mariana
Pinus banksiana
Rosa acicularis
Vaccinium spp.

Herbs

Apocynum androsaemifolium
Cladina rangiferina
feathermoss
fern spp.
Lycopodium complanatum
Maianthemum canadense
Melampyrum lineare

Plate 35.



V19

STAND CLASSIFICATION

FEC Vegetation Type: V19
FEC Soils Type: SS1
Forest Section: B.14

LOCATION

Latitude & longitude: 49°57'N,93°30'W
OMNR District: Dryden
Plot number: 128

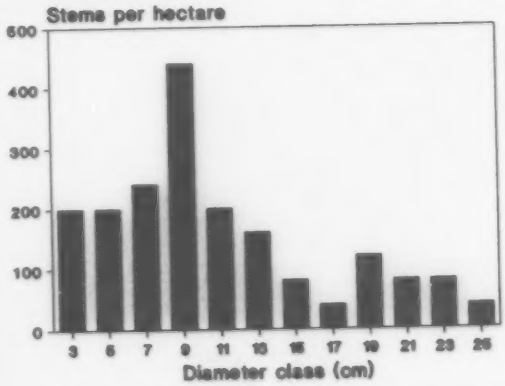
STAND CHARACTERISTICS

Overstory Composition: Black spruce 60% Jack pine 16% Balsam fir 12%
Poplar 8% White birch 4%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	19.0	9.0
Black spruce	15.0	7.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.30	0-2 cm	0.23
3-7 cm	0.25	2-4 cm	0.35
≥ 7 cm	0.99	4-6 cm	0.40
		6-8 cm	0.33
Total	1.54	8-10 cm	0.34
		Total	1.65

Average forest-floor depth: 8.3 cm

Understory Vegetation

Shrubs

Abies balsamea
Acer spicatum
Alnus crispa
Amelanchier spp.
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Linnaea borealis
Picea mariana
Populus spp.
Rosa acicularis
Vaccinium spp.

Herbs

Aralia nudicaulis
Aster macrophyllus
Cladina rangiferina
Clintonia borealis
feathermoss
graminoid spp.
Lycopodium obscurum
Lycopodium clavatum
Rubus pubescens
Sphagnum spp.
Trientalis borealis

Plate 36.

V19

STAND CLASSIFICATION

FEC Vegetation Type: V19
FEC Soils Type: SS5
Forest Section: B.8

LOCATION

Latitude & longitude: 49°39'N,87°49'W
OMNR District: Nipigon
Plot number: 223

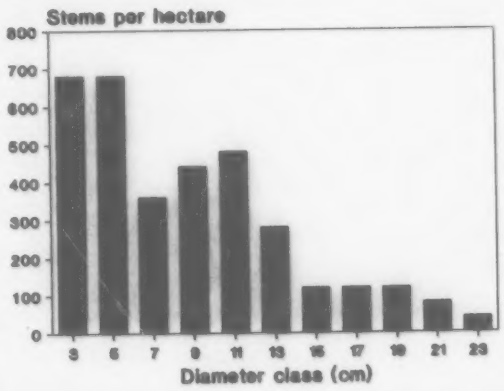
STAND CHARACTERISTICS

Overstory Composition: Black spruce 40% White birch 24% Jack pine 20%
Poplar 12% Balsam fir 4%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Poplar	14.0	9.0
Jack pine	14.3	9.0
Black spruce	10.3	4.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.27	0-2 cm	0.86
3-7 cm	0.20	2-4 cm	1.16
≥ 7 cm	0.63	4-6 cm	1.27
		6-8 cm	0.96
Total	1.10	8-10 cm	0.60
		Total	4.85

Average forest-floor depth: 8.1 cm

Understory Vegetation

Shrubs

Abies balsamea
Alnus crispa
Betula papyrifera
Cornus canadensis
Epigaea repens
Gaultheria hispidula
Ledum groenlandicum
Linnaea borealis
Rosa acicularis
Salix spp.
Vaccinium spp.
Viburnum edule

Herbs

Aster macrophyllus
Clintonia borealis
Coptis trifolia
feathermoss
Lycopodium clavatum
Maianthemum canadense
Melampyrum lineare
Petasites palmatus

Plate 37.

V20

STAND CLASSIFICATION

FEC Vegetation Type: V20
FEC Soils Type: SS1
Forest Section: B.8

LOCATION

Latitude & longitude: 49°44'N,87°41'W
OMNR District: Nipigon
Plot number: 222

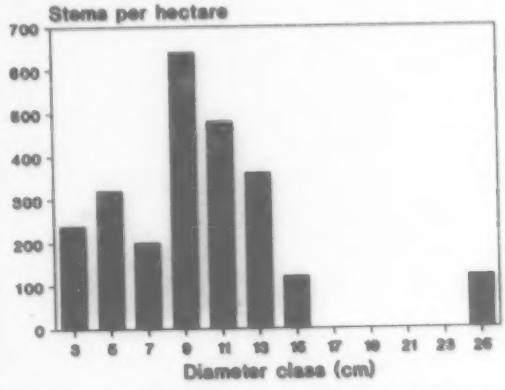
STAND CHARACTERISTICS

Overstory Composition: Black spruce 47% Poplar 42% Balsam fir 6% Jack pine 5%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	14.0	4.0
Jack pine	17.0	6.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.15	0-2 cm	0.29
3-7 cm	0.40	2-4 cm	0.58
≥ 7 cm	0.58	4-6 cm	0.55
		6-8 cm	0.91
Total	1.13	Total	2.33

Average forest-floor depth: 7.2 cm

Understory Vegetation

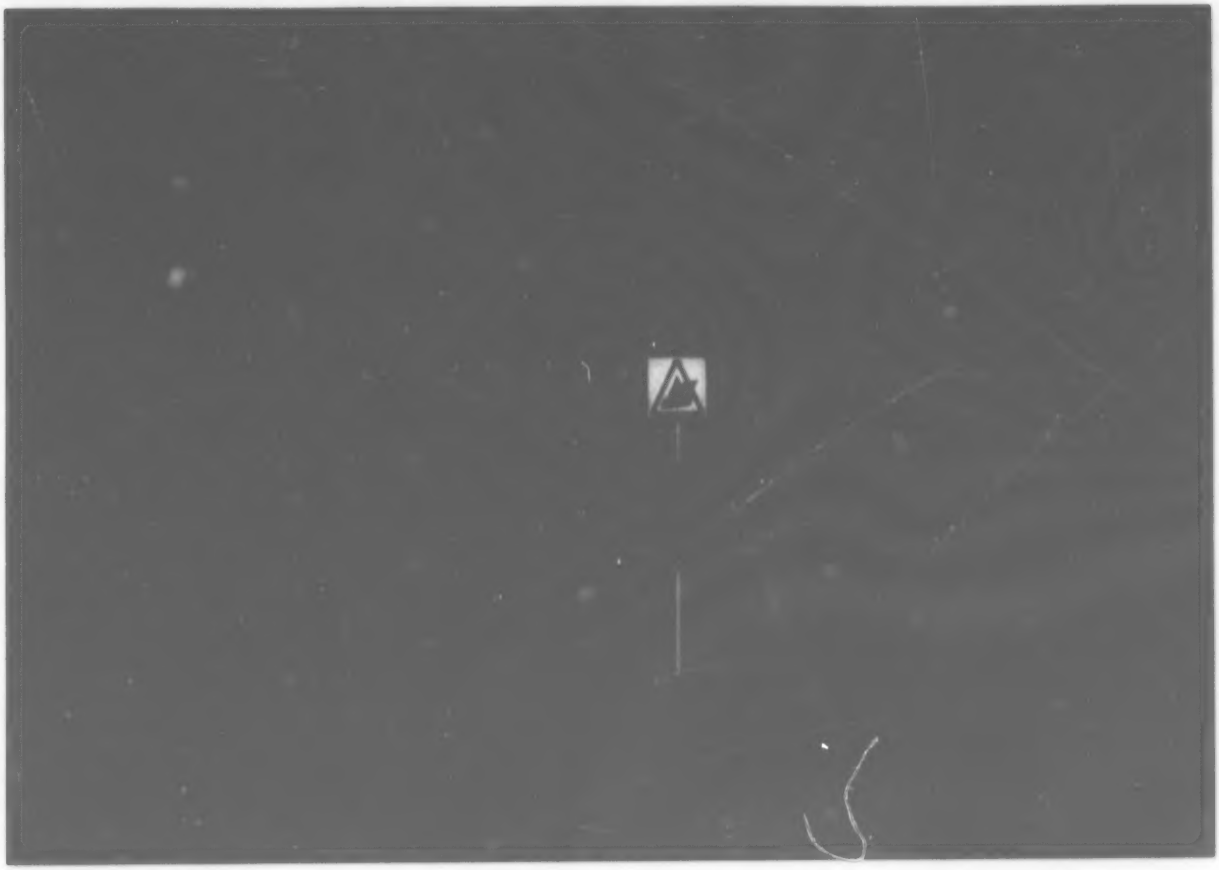
Shrubs

Abies balsamea
Alnus crispa
Gaultheria hispidula
Ledum groenlandicum
Picea mariana
Vaccinium spp.

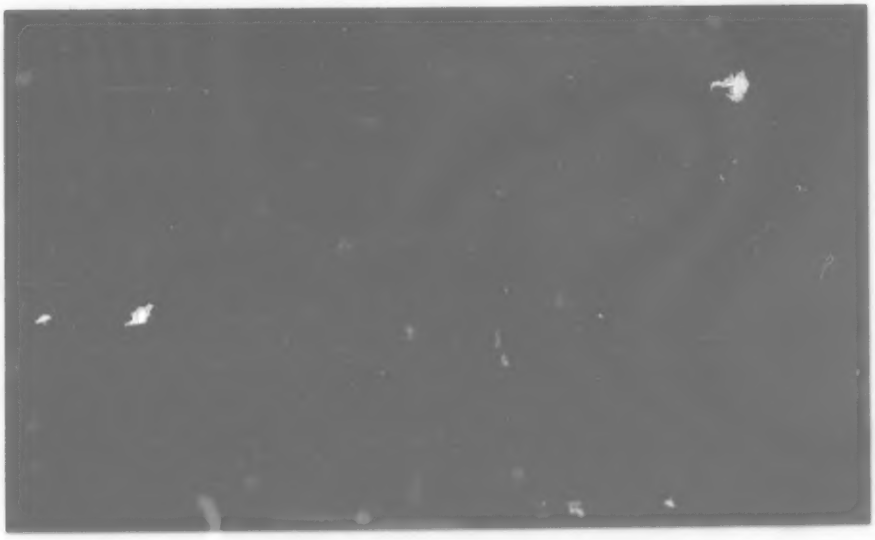
Herbs

Cladina rangiferina
feathermoss
Lycopodium clavatum
Sphagnum spp.

Plate 38.



V20



STAND CLASSIFICATION

FEC Vegetation Type: V20
FEC Soils Type: S2
Forest Section: B.8

LOCATION

Latitude & longitude: 49°40'N,87°42'W
OMNR District: Nipigon
Plot number: 224

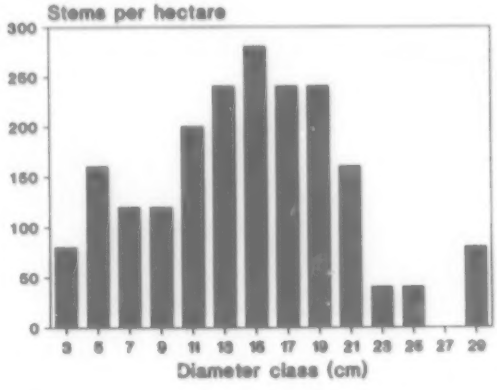
STAND CHARACTERISTICS

Overstory Composition: Black spruce 37% Poplar 37% Jack pine 26%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	16.0	4.0
Jack pine	19.0	10.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.18	0-2 cm	0.58
3-7 cm	0.08	2-4 cm	1.00
≥ 7 cm	0.63	4-6 cm	0.97
		6-8 cm	0.74
Total	0.89	8-10 cm	0.36
		Total	3.65

Average forest-floor depth: 8.3 cm

Understory Vegetation

Shrubs

Alnus crispa
Alnus rugosa
Cornus canadensis
Ledum groenlandicum
Linnaea borealis
Picea mariana
Populus spp.
Prunus pensylvanica
Rosa acicularis
Salix spp.
Vaccinium spp.

Herbs

Cladina rangiferina
Equisetum silvaticum
feathermoss
Maianthemum canadense

Plate 39.

V20

STAND CLASSIFICATION

FEC Vegetation Type: V20
FEC Soils Type: SS3
Forest Section: B.8

LOCATION

Latitude & longitude: 49°24'N,87°35'W
OMNR District: Nipigon
Plot number: 246

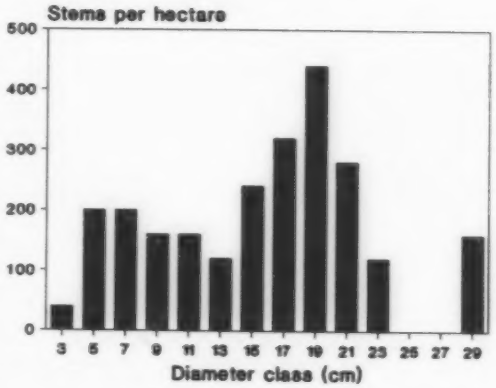
STAND CHARACTERISTICS

Overstory Composition: Black spruce 46% Balsam fir 29% White birch 17% Jack pine 8%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	19.0	4.0
Jack pine	20.0	15.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.41	0-2 cm	0.62
3-7 cm	0.55	2-4 cm	0.49
≥ 7 cm	2.25	4-6 cm	0.81
		6-8 cm	0.90
Total	3.21	8-10 cm	0.89
		Total	3.71

Average forest-floor depth: 15.5 cm

Understory Vegetation

Shrubs

Abies balsamea
Alnus crispa
Betula papyrifera
Cornus canadensis
Gaultheria hispidula
Ledum groenlandicum
Picea mariana
Vaccinium spp.

Herbs

Cladina rangiferina
Cypripedium acaule
Equisetum silvaticum
feathermoss
Lycopodium clavatum

Plate 40.

V20

STAND CLASSIFICATION

FEC Vegetation Type: V20
FEC Soils Type: SS3
Forest Section: B.8

LOCATION

Latitude & longitude: 49°27'N,87°34'W °
OMNR District: Nipigon
Plot number: 250

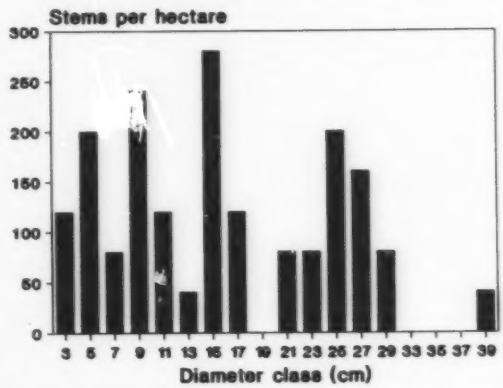
STAND CHARACTERISTICS

Overstory Composition: Black spruce 56% Balsam fir 28% White birch 16%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	25.0	21.0
Black spruce	23.(	13.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.16	0-2 cm	0.57
3-7 cm	0.30	2-4 cm	0.76
≥ 7 cm	2.03	4-6 cm	0.93
		6-8 cm	0.91
Total	2.49	8-10 cm	1.00
		Total	4.17

Average forest-floor depth: 19.2 cm

Understory Vegetation

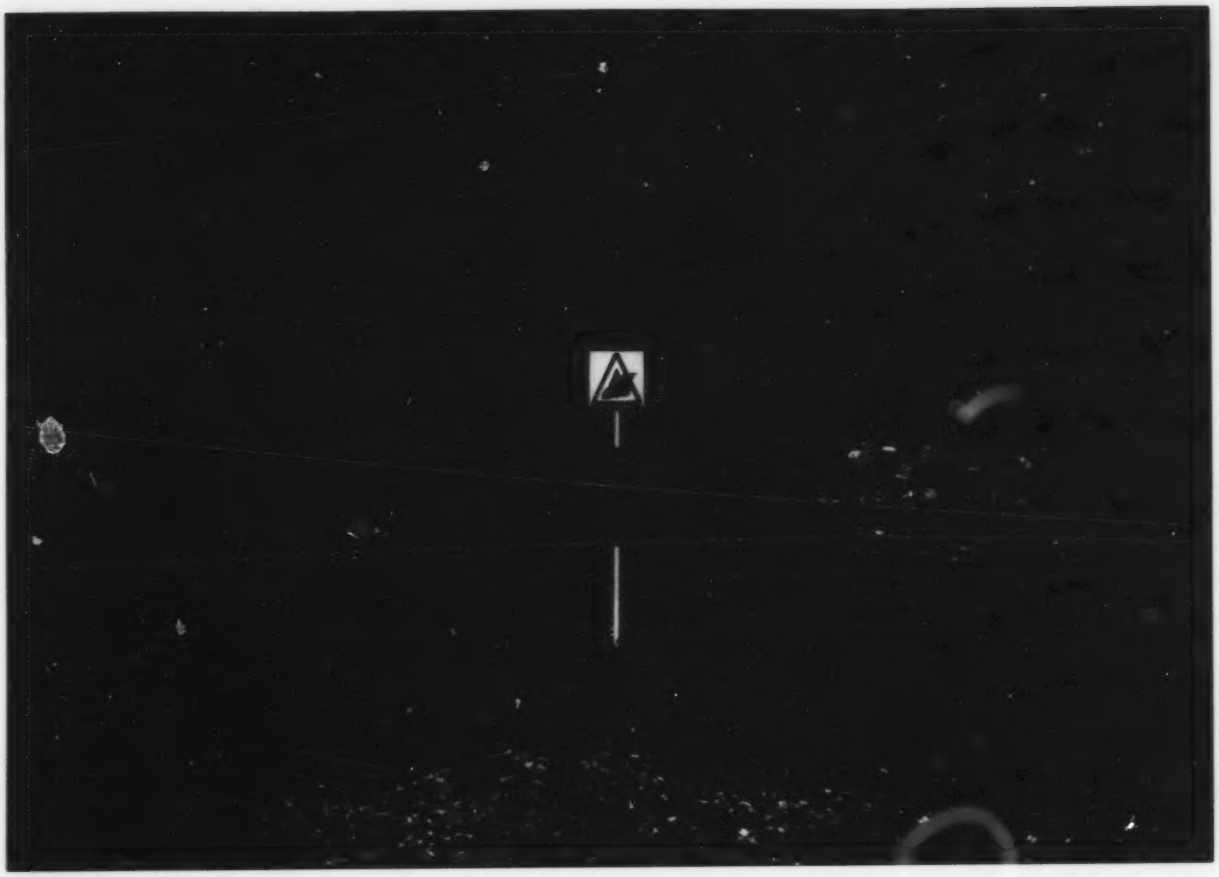
Shrubs

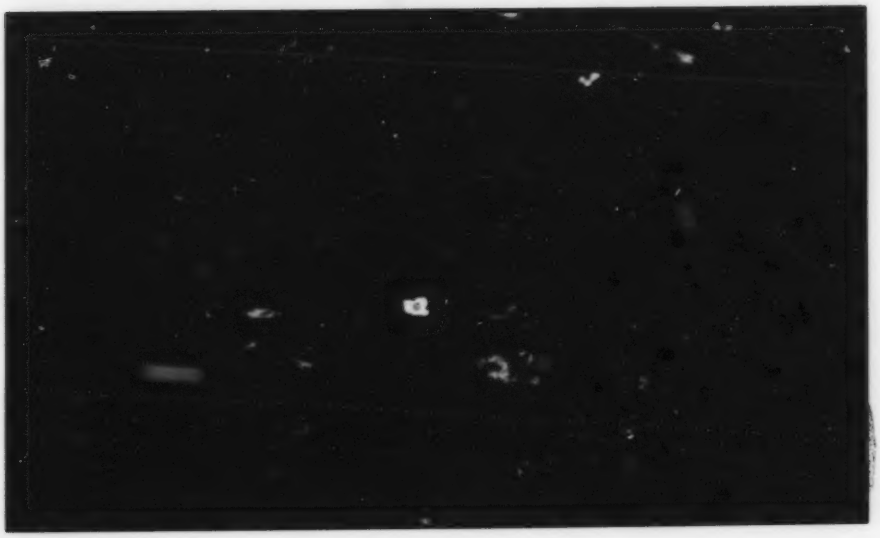
Abies balsamea
Betula papyrifera
Cornus canadensis
Gaultheria hispidula
Linnaea borealis
Rosa acicularis
Vaccinium spp.

Herbs

Coptis trifolia
feathermoss
Maianthemum canadense
Mitella nuda
Viola spp.

Plate 41.





V20

STAND CLASSIFICATION

FEC Vegetation Type: V20
FEC Soils Type: S6
Forest Section: B.4

LOCATION

Latitude & longitude: 49°08'N,81°23'W
OMNR District: Cochrane
Plot number: 272

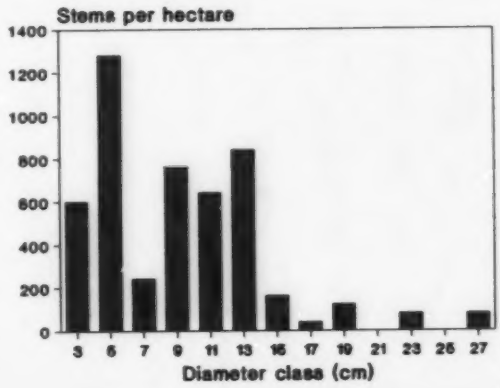
STAND CHARACTERISTICS

Overstory Composition: Black spruce 62% Poplar 38%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	15.0	3.0
Poplar	14.0	9.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.24	0-2 cm	0.45
3-7 cm	0.10	2-4 cm	1.07
≥ 7 cm	0.40	4-6 cm	1.09
		6-8 cm	0.77
Total	0.74	8-10 cm	0.62
		Total	4.00

Average forest-floor depth: 51.5 cm

Understory Vegetation

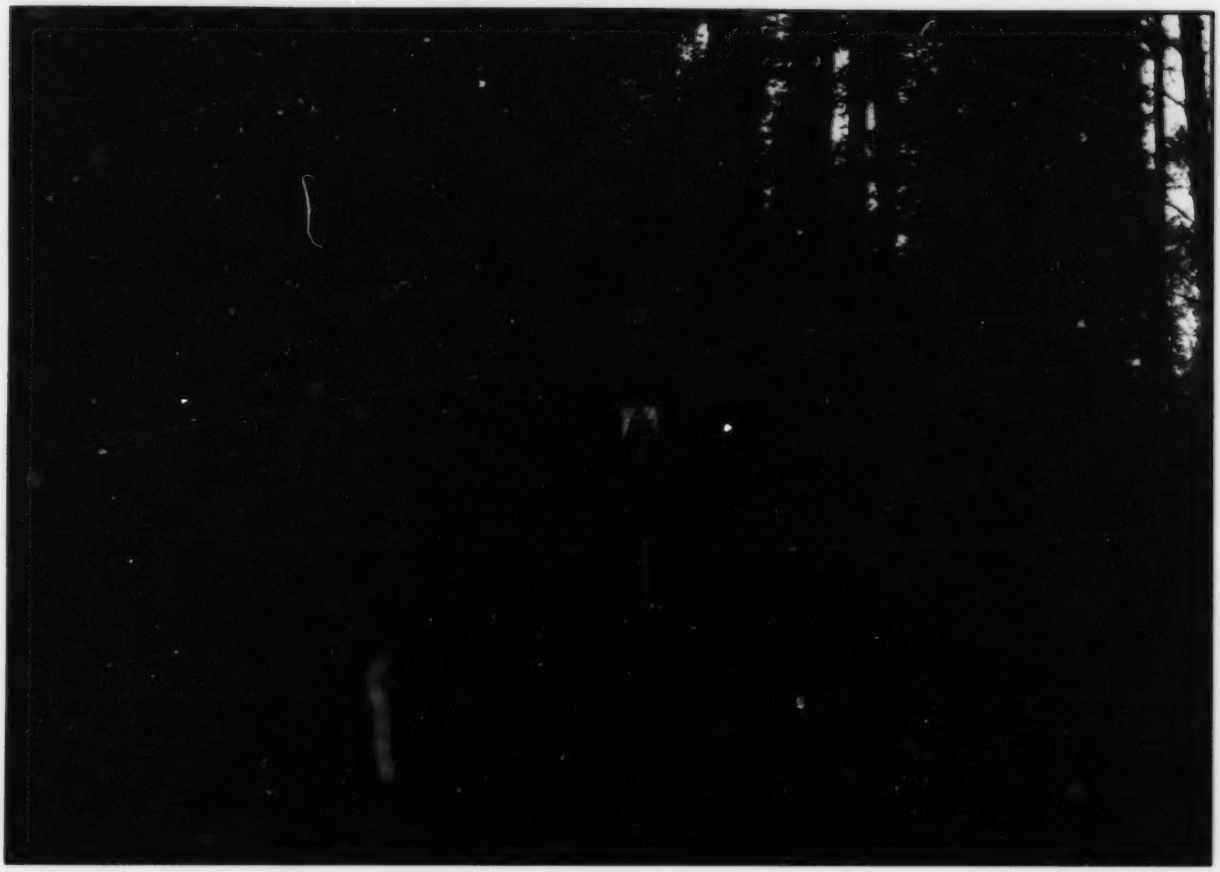
Shrubs

Alnus rugosa
Chamaedaphne calyculata
Cornus canadensis
Ledum groenlandicum
Linnaea borealis
Picea mariana
Populus spp.
Ribes spp.
Salix spp.
Vaccinium spp.

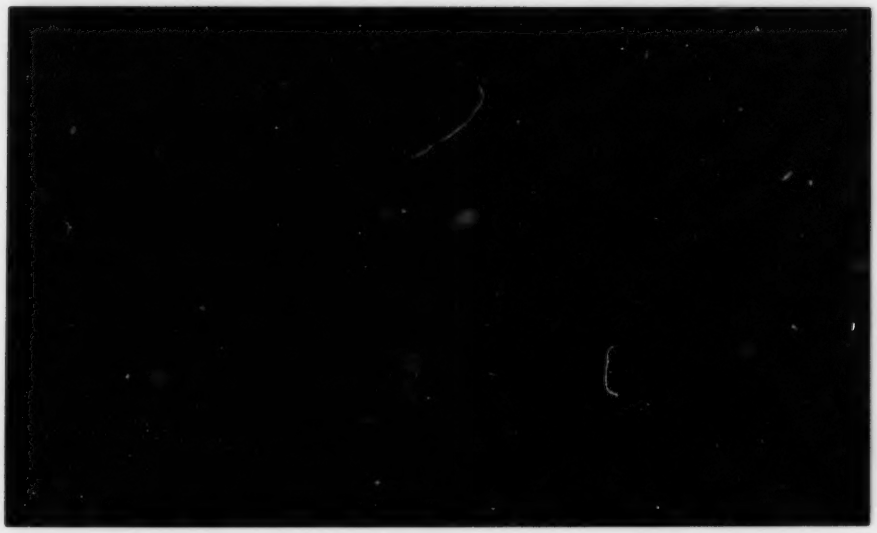
Herbs

Aster macrophyllus
Epilobium angustifolium
Equisetum silvaticum
feathermoss
Mitella nuda
Rubus pubescens

Plate 42.



V25



STAND CLASSIFICATION

FEC Vegetation Type: V25
FEC Soils Type: S6
Forest Section: L.11

LOCATION

Latitude & longitude: 49°32'N,94°04'W
OMNR District: Kenora
Plot number: 91

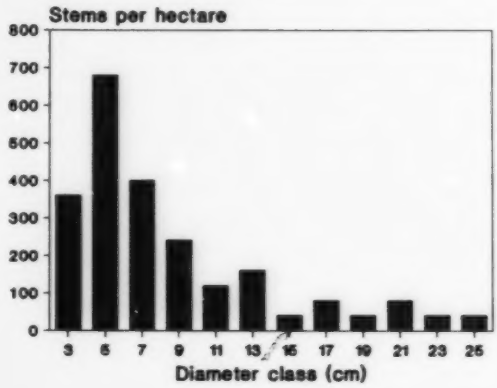
STAND CHARACTERISTICS

Overstory Composition: Balsam fir 43% White spruce 38% Black spruce 19%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
White spruce	19.5	5.0
White spruce	20.0	5.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.41	0-2 cm	0.58
3-7 cm	0.45	2-4 cm	0.93
≥ 7 cm	2.38	4-6 cm	1.19
		6-8 cm	0.87
Total	3.24	8-10 cm	0.99
		Total	4.56

Average forest-floor depth: 10.1 cm

Understory Vegetation

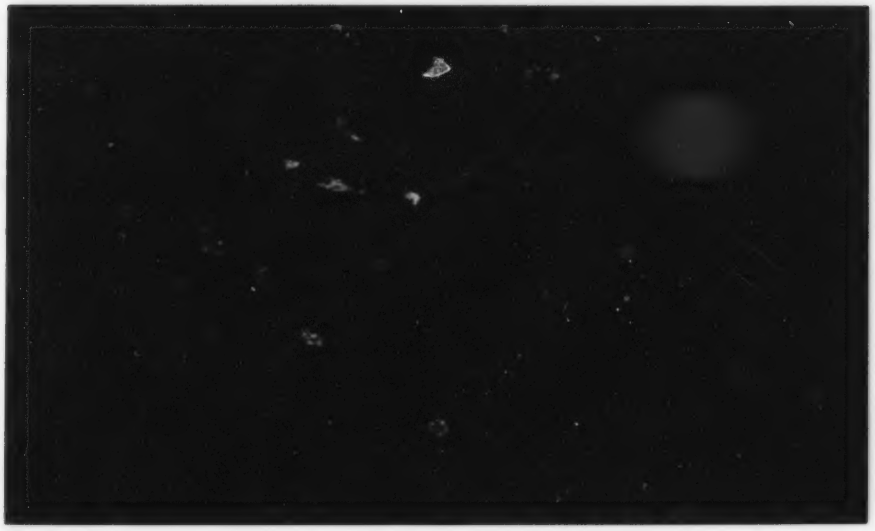
Shrubs

Abies balsamea
Acer spicatum
Cornus canadensis
Linnaea borealis
Ribes spp.
Rosa acicularis

Herbs

Aralia nudicaulis
Aster macrophyllus
Clintonia borealis
Galium triflorum
Lycopodium clavatum
Pleurozium schreberi
Rubus pubescens
Streptopus roseus

Plate 43.



V27

STAND CLASSIFICATION

FEC Vegetation Type: V27
FEC Soils Type: S2
Forest Section: L.11

LOCATION

Latitude & longitude: 49°40'N,93°55'W
OMNR District: Kenora
Plot number: 83

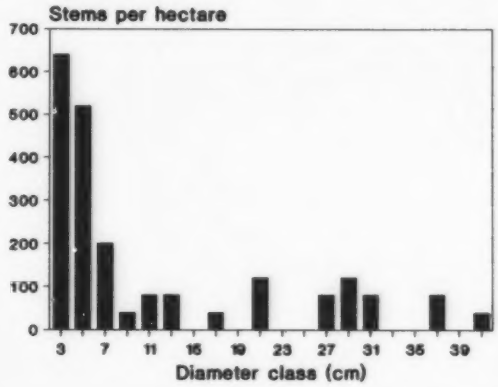
STAND CHARACTERISTICS

Overstory Composition: Black spruce 26% Jack pine 26% White birch 26% Red pine 22%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Red Pine	24.0	17.0
Jack pine	22.0	16.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.19	0-2 cm	0.63
3-7 cm	0.07	2-4 cm	0.64
≥ 7 cm	0.92	4-6 cm	0.95
		6-8 cm	0.14
Total	1.18	Total	2.36

Average forest-floor depth: 5.7 cm

Understory Vegetation

Shrubs

Alnus crispa
Arctostaphylos uva-ursi
Chimaphila umbellata
Picea mariana
Populus spp.
Vaccinium spp.

Herbs

Cypripedium acaule
Maianthemum canadense
Pleurozium schreberi

Plate 44.

V28

STAND CLASSIFICATION

FEC Vegetation Type: V28
FEC Soils Type: S1
Forest Section: L.11

LOCATION

Latitude & longitude: 49°39'N,94°10'W
OMNR District: Kenora
Plot number: 85

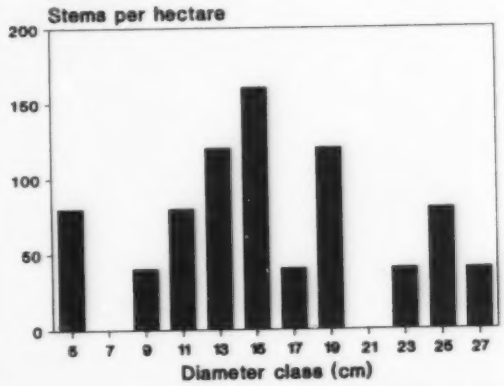
STAND CHARACTERISTICS

Overstory Composition: Jack pine 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	16.0	5.0
Jack pine	13.0	5.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.19	0-2 cm	0.47
3-7 cm	0.16	2-4 cm	0.54
≥ 7 cm	0.70	4-6 cm	0.57
Total	1.05	Total	1.58

Average forest-floor depth: 4.6 cm

Understory Vegetation

Shrubs

Amelanchier spp.
Arctostaphylos uva-ursi
Cornus canadensis
Gaultheria procumbens
Juniperus communis
Picea mariana
Pinus banksiana
Populus spp.
Potentilla tridentata
Vaccinium spp.

Herbs

Anemone quinquefolia
Apocynum androsaemifolium
Aster spp.
Cladina rangiferina
feathermoss
fern spp.
graminoid spp.

Plate 45.

V28

STAND CLASSIFICATION

FEC Vegetation Type: V28
FEC Soils Type: S1
Forest Section: B.14

LOCATION

Latitude & longitude: 49°48'N,93°17'W
OMNR District: Dryden
Plot number: 123

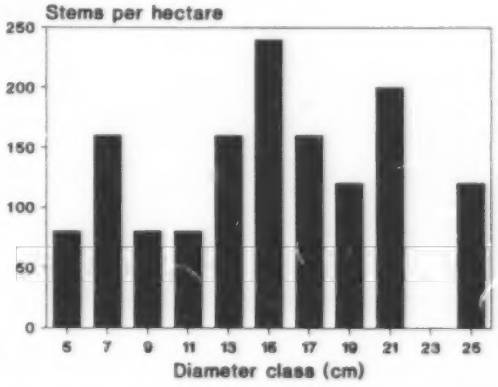
STAND CHARACTERISTICS

Overstory Composition: Jack pine 79% Balsam fir 14% Red pine 7%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	15.5	5.5
Jack pine	16.0	5.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.17	0-2 cm	0.74
3-7 cm	0.12	2-4 cm	0.84
≥ 7 cm	0.38	4-6 cm	0.40
Total	0.67	Total	1.98

Average forest-floor depth: 4.9 cm

Understory Vegetation

Shrubs

Alnus crispa
Arctostaphylos uva-ursi
Cornus canadensis
Diervilla lonicera
Gaultheria procumbens
Linnaea borealis
Vaccinium spp.

Herbs

Aralia nudicaulis
graminoid spp.
Lycopodium complanatum
Maianthemum canadense
Pleurozium schreberi
Pyrola asarifolia
Trientalis borealis

Plate 46.

V28

STAND CLASSIFICATION

FEC Vegetation Type: V28
FEC Soils Type: S1
Forest Section: B.14

LOCATION

Latitude & longitude: 49°53'N,93°15'W
OMNR District: Dryden
Plot number: 144

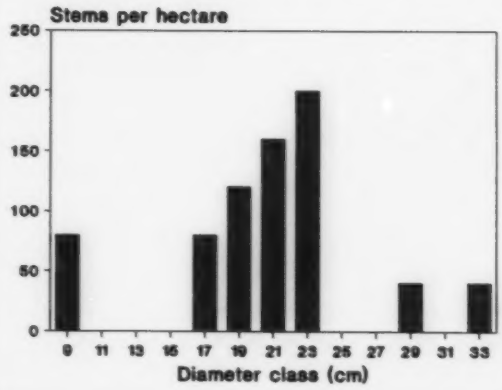
STAND CHARACTERISTICS

Overstory Composition: Jack pine 75% Balsam fir 13% Black spruce 12%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	12.0	7.0
Jack pine	13.0	7.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.25	0-2 cm	0.52
3-7 cm	0.18	2-4 cm	0.30
≥ 7 cm	0.57	4-6 cm	0.35
		6-8 cm	0.43
Total	1.00	8-10 cm	0.31
		Total	1.91

Average forest-floor depth: 6.8 cm

Understory Vegetation

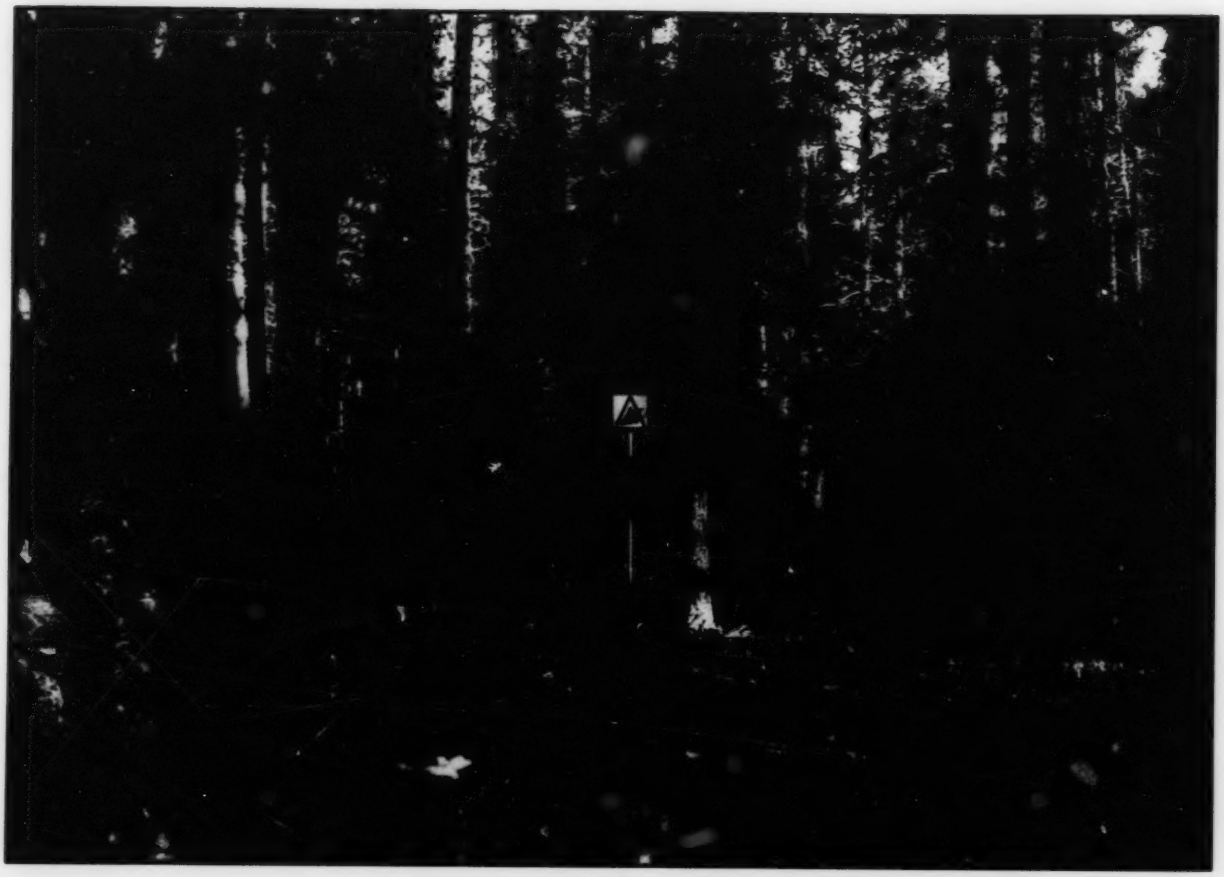
Shrubs

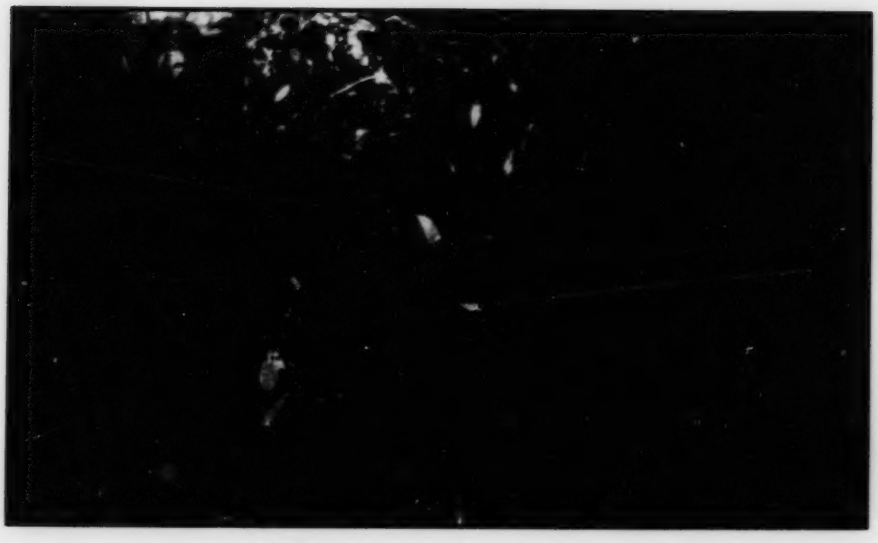
Abies balsamea
Alnus crispa
Amelanachier spp.
Arctostaphylos uva-ursi
Chimaphila umbellata
Cornus canadensis
Diervilla lonicera
Gaultheria procumbens
Linnaea borealis
Vaccinium spp.

Herbs

Apocynum androsaemifolium
Aralia nudicaulis
Cladina rangiferina
Epilobium angustifolium
feathermoss
graminoid spp.
Lycopodium obscurum
Maianthemum canadense
Trientalis borealis

Plate 47.





V28

STAND CLASSIFICATION

FEC Vegetation Type: V28
FEC Soils Type: S1
Forest Section: B.14

LOCATION

Latitude & longitude: 49°53'N,93°15'W
OMNR District: Dryden
Plot number: 145

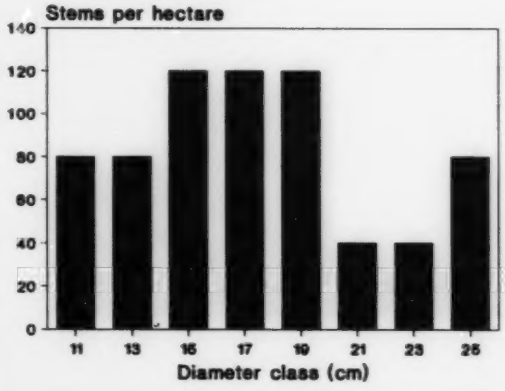
STAND CHARACTERISTICS

Overstory Composition: Jack pine 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	14.5	10.0
Jack pine	14.0	11.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.18	0-2 cm	0.32
3-7 cm	0.13	2-4 cm	0.57
≥ 7 cm	0.65	4-6 cm	1.08
		6-8 cm	1.08
Total	0.96	8-10 cm	0.53
		Total	3.58

Average forest-floor depth: 7.6 cm

Understory Vegetation

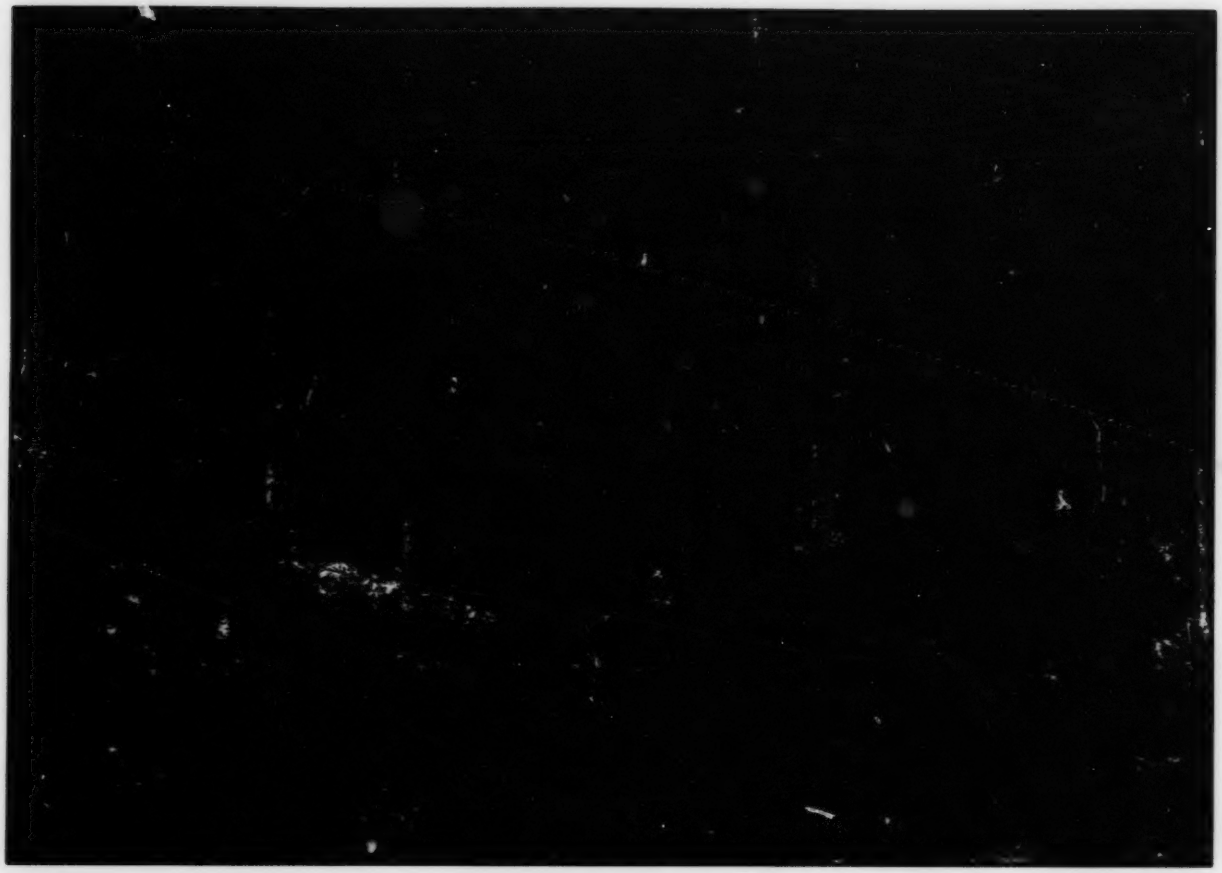
Shrubs

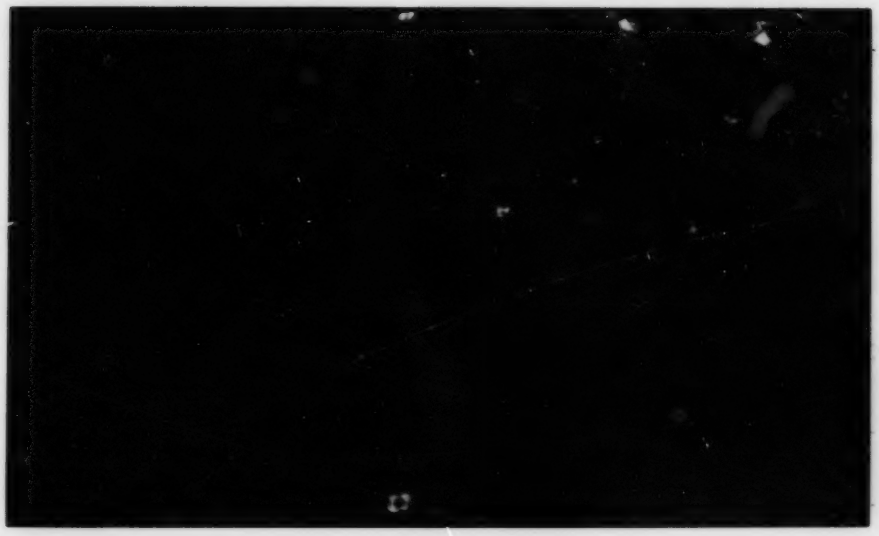
Alnus crispa
Amelanachier spp.
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Gaultheria procumbens
Linnaea borealis
Rosa acicularis
Vaccinium spp.

Herbs

Aralia nudicaulis
feathermoss
Maianthemum canadense

Plate 48.





V29

STAND CLASSIFICATION

FEC Vegetation Type: V29
FEC Soils Type: S2
Forest Section: B.7

LOCATION

Latitude & longitude: 47°17'N,83°13'W
OMNR District: Chapleau
Plot number: 1

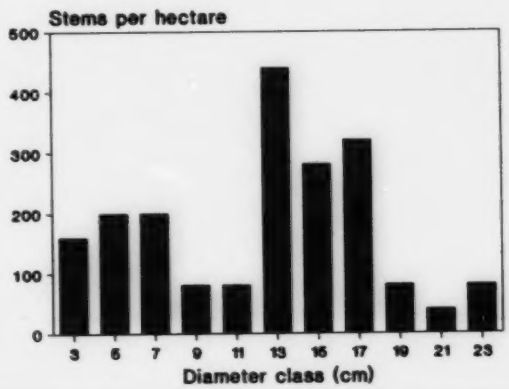
STAND CHARACTERISTICS

Overstory Composition: Jack pine 86% Black spruce 14%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	14.5	7.0
Jack pine	15.8	6.0
Jack pine	15.5	8.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.22	0-2 cm	0.84
3-7 cm	0.10	2-4 cm	1.54
≥ 7 cm	1.22	4-6 cm	3.10
		6-8 cm	4.33
Total	1.54	8-10 cm	1.72
		Total	11.53

Average forest-floor depth: 9.2 cm

Understory Vegetation

Shrubs

Cornus canadensis
Gaultheria hispidula
Gaultheria procumbens
Ledum groenlandicum
Linnaea borealis
Vaccinium spp.

Herbs

Coptis trifolia
feathermoss

Plate 49.

V29

STAND CLASSIFICATION

FEC Vegetation Type: V29
FEC Soils Type: SS5
Forest Section: B.7

LOCATION

Latitude & longitude: 47°34'N,83°01'W
OMNR District: Chapleau
Plot number: 39

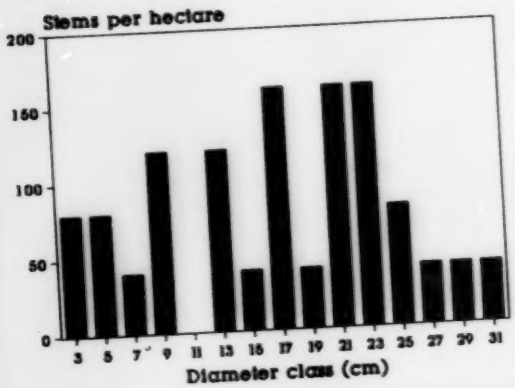
STAND CHARACTERISTICS

Overstory Composition: Jack pine 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	20.0	12.0
Jack pine	16.0	8.0
Jack pine	23.0	13.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.06	0-2 cm	0.41
3-7 cm	0.20	2-4 cm	0.55
≥ 7 cm	1.99	4-6 cm	0.70
		6-8 cm	0.80
Total	2.25	8-10 cm	0.61
		Total	3.07

Average forest-floor depth: 13.1 cm

Understory Vegetation

Shrubs

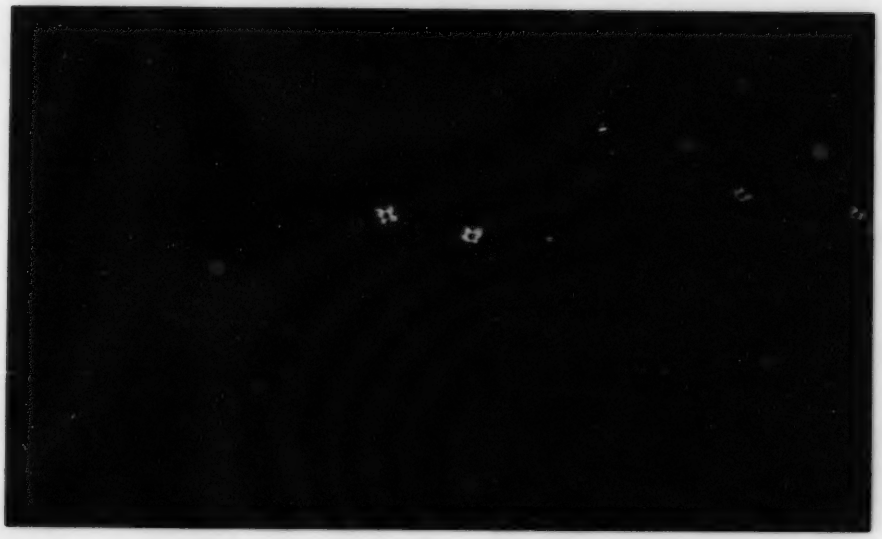
Cornus canadensis
Epigaea repens
Ledum groenlandicum
Linnaea borealis
Prunus pensylvanica
Prunus virginiana
Salix spp.
Vaccinium spp.

Herbs

Cypripedium acaule
feathermoss
Maianthemum canadense

Plate 50.

V29



STAND CLASSIFICATION

FEC Vegetation Type: V29
FEC Soils Type: S1
Forest Section: B.7

LOCATION

Latitude & longitude: 47°34'N,82°59'W
OMNR District: Chapleau
Plot number: 41

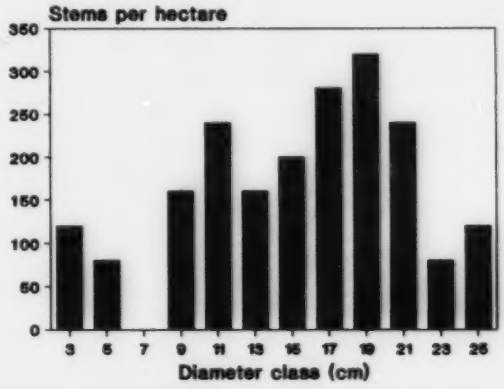
STAND CHARACTERISTICS

Overstory Composition: Jack pine 76% Black spruce 12% Balsam fir 6% White birch 6%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	16.0	11.0
Jack pine	11.5	5.0
Jack pine	11.3	7.3

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.03	0-2 cm	0.66
3-7 cm	0.18	2-4 cm	0.64
≥ 7 cm	1.22	4-6 cm	1.05
		6-8 cm	0.93
Total	1.43	8-10 cm	0.67
		Total	3.95

Average forest-floor depth: 12.8 cm

Understory Vegetation

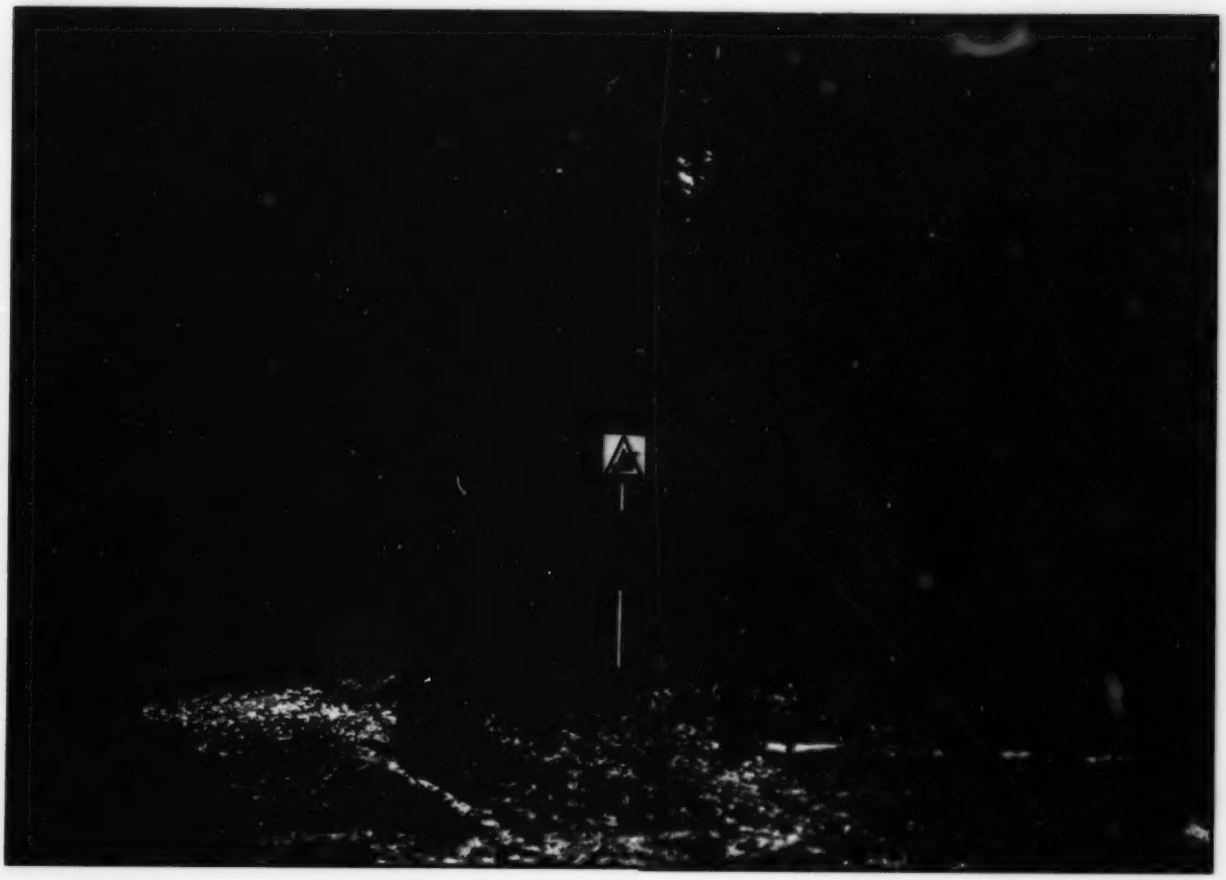
Shrubs

Comptonia peregrina
Cornus canadensis
Diervilla lonicera
Epigaea repens
Gaultheria procumbens
Linnaea borealis
Prunus pensylvanica
Prunus virginiana
Salix spp.
Vaccinium spp.

Herbs

Cladina rangiferina
feathermoss
Maianthemum canadense
Trientalis borealis

Plate 51.



V29

STAND CLASSIFICATION

FEC Vegetation Type: V29
FEC Soils Type: S1
Forest Section: B.7

LOCATION

Latitude & longitude: 47°39'N,83°16'W
OMNR District: Chapleau
Plot number: 51

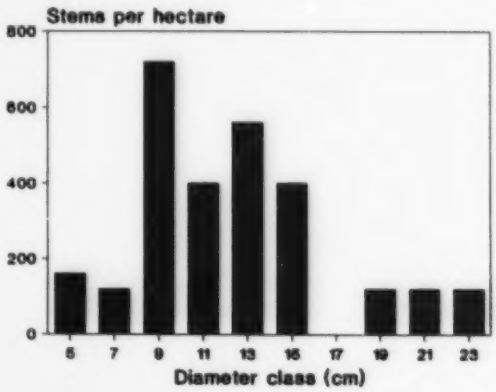
STAND CHARACTERISTICS

Overstory Composition: Jack pine 80% Black spruce 20%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	26.5	18.5
Jack pine	24.0	19.0
Jack pine	26.0	21.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.19	0-2 cm	0.50
3-7 cm	0.70	2-4 cm	0.47
≥ 7 cm	2.23	4-6 cm	0.71
		6-8 cm	1.16
Total	3.12	8-10 cm	0.44
		Total	3.28

Average forest-floor depth: 8.7 cm

Understory Vegetation

Shrubs

Alnus crispa
Diervilla lonicera
Linnaea borealis
Prunus pensylvanica
Rosa acicularis
Rubus idaeus
Salix spp.
Vaccinium spp.

Herbs

Aralia nudicaulis
Aster macrophyllus
feathermoss
Fragaria virginiana
Maianthemum canadense

Plate 52.

V29

STAND CLASSIFICATION

FEC Vegetation Type: V29
FEC Soils Type: S1
Forest Section: B.14

LOCATION

Latitude & longitude: 49°48'N,93°17'W
OMNR District: Dryden
Plot number: 121

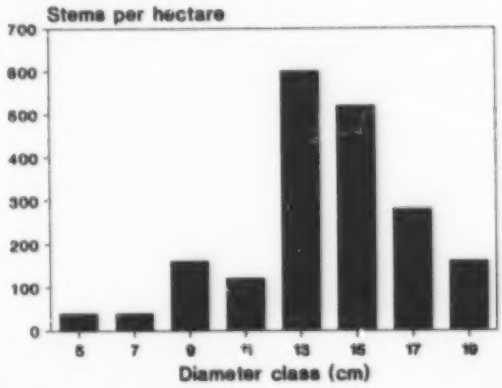
STAND CHARACTERISTICS

Overstory Composition: Jack pine 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	14.0	11.0
Jack pine	13.0	11.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.25	0-2 cm	0.33
3-7 cm	0.29	2-4 cm	0.45
≥ 7 cm	1.06	4-6 cm	0.51
		6-8 cm	0.28
Total	1.60	Total	1.57

Average forest-floor depth: 5.7 cm

Understory Vegetation

Shrubs

Arctostaphylos uva-ursi
Chimaphila umbellata
Gaultheria procumbens
Linnaea borealis
Vaccinium spp.

Herbs

Apocynum androsaemifolium
feathermoss
Maianthemum canadense

Plate 53.

V30

STAND CLASSIFICATION

FEC Vegetation Type: V30
FEC Soils Type: SS1
Forest Section: L.11

LOCATION

Latitude & longitude: 49°38'N,94°09'W
OMNR District: Kenora
Plot number: 81

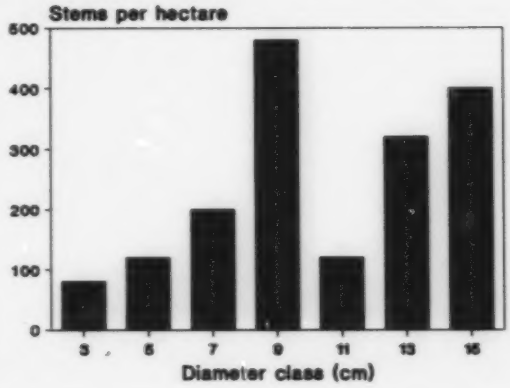
STAND CHARACTERISTICS

Overstory Composition: Jack pine 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	11.5	6.0
Jack pine	10.0	5.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.05	0-2 cm	0.57
3-7 cm	0.20	2-4 cm	0.52
≥ 7 cm	0.40	4-6 cm	0.99
		6-8 cm	0.50
Total	0.65	8-10 cm	0.30
		Total	2.88

Average forest-floor depth: 5.6 cm

Understory Vegetation

Shrubs

Amelanchier spp.
Juniperus communis
Potentilla tridentata
Salix spp.
Vaccinium spp.

Herbs

Apocynum androsaemifolium
Campanula rotundifolia
Cladina rangiferina
feathermoss

Plate 54.

V30

STAND CLASSIFICATION

FEC Vegetation Type: V30
FEC Soils Type: SS7
Forest Section: L.11

LOCATION

Latitude & longitude: 49°39'N,94°13'W
OMNR District: Kenora
Plot number: 100

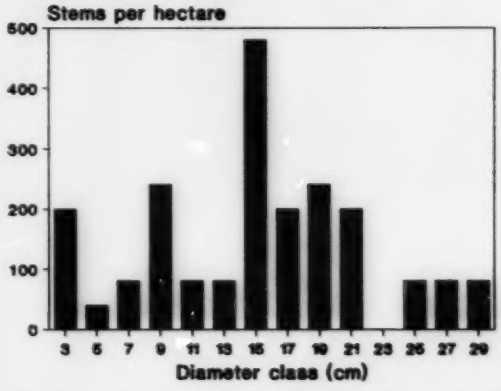
STAND CHARACTERISTICS

Overstory Composition: Jack pine 52% Poplar 31% Black spruce 10% Balsam fir 7%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	16.0	10.0
Jack pine	17.0	7.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.35	0-2 cm	0.49
3-7 cm	0.23	2-4 cm	0.52
≥ 7 cm	1.60	4-6 cm	0.20
		6-8 cm	0.24
Total	2.18	8-10 cm	0.21
		Total	1.66

Average forest-floor depth: 4.3 cm

Understory Vegetation

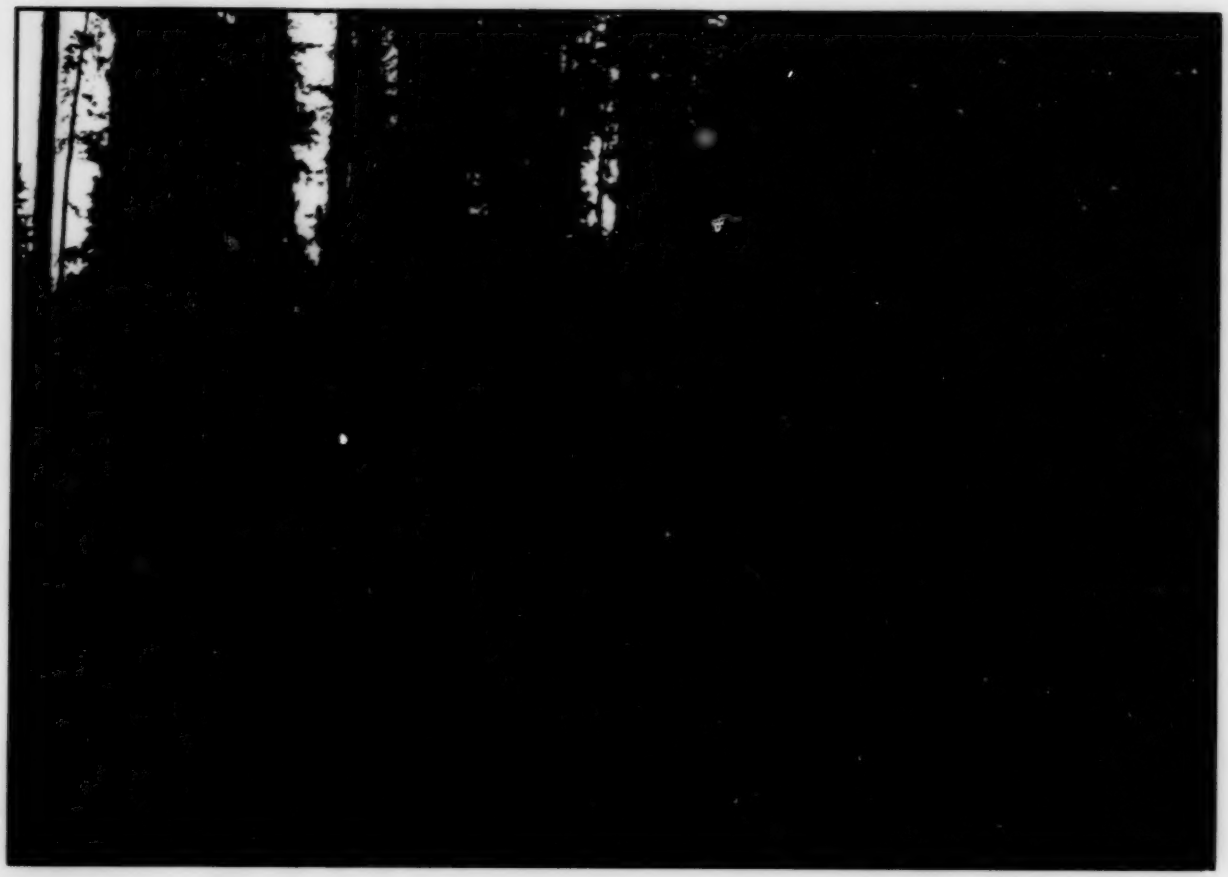
Shrubs

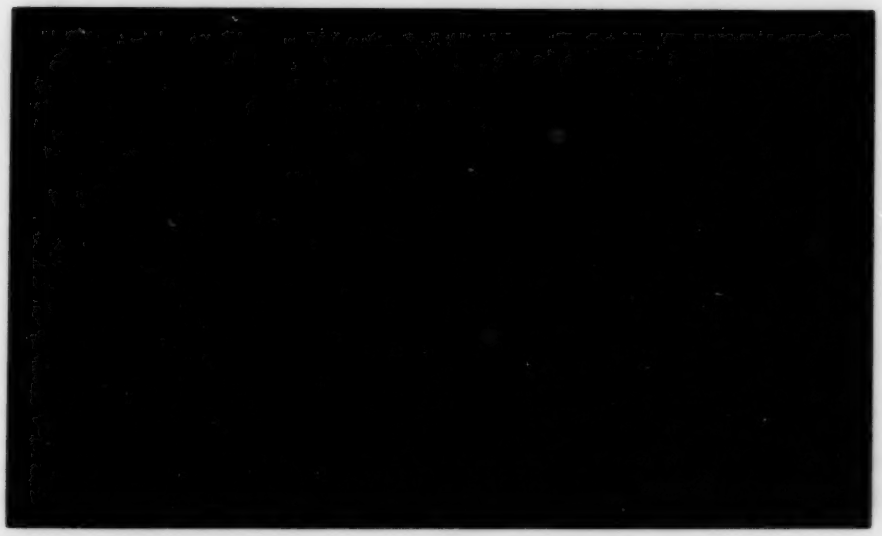
Abies balsamea
Amelanchier spp.
Betula papyrifera
Chimaphila umbellata
Diervilla lonicera
Populus spp.
Rosa acicularis
Salix spp.
Vaccinium spp.

Herbs

Aralia nudicaulis
Aster macrophyllus
Cladina rangiferina
graminoid spp.
Maianthemum canadense
Pleurozium schreberi

Plate 55.





V31

STAND CLASSIFICATION

FEC Vegetation Type: V31
FEC Soils Type: S1
Forest Section: B.7

LOCATION

Latitude & longitude: 47°45'N,83°23'W
OMNR District: Chapleau
Plot number: 42

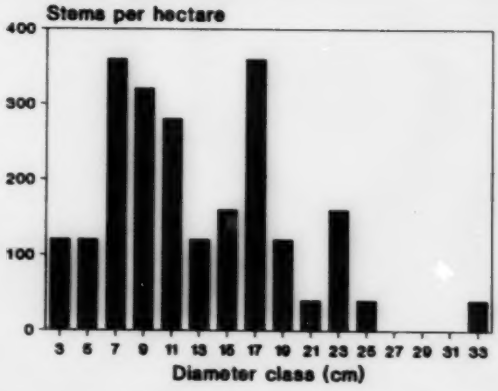
STAND CHARACTERISTICS

Overstory Composition: Black spruce 52% Jack pine 39% Balsam fir 9%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	23.0	15.0
Black spruce	19.0	0.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.16	0-2 cm	0.31
3-7 cm	0.16	2-4 cm	0.53
≥ 7 cm	0.42	4-6 cm	0.83
		6-8 cm	1.70
Total	0.74	8-10 cm	1.73
		Total	5.10

Average forest-floor depth: 12.6 cm

Understory Vegetation

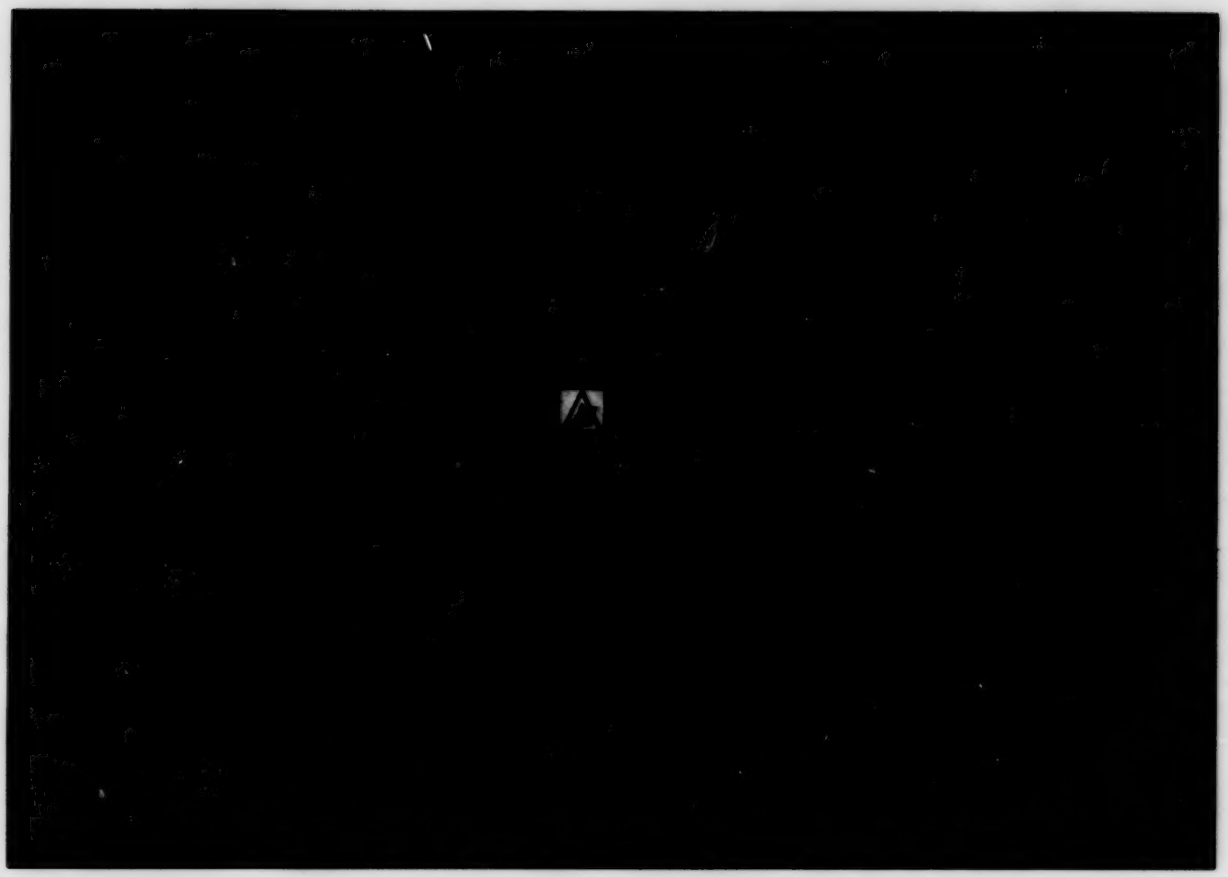
Shrubs

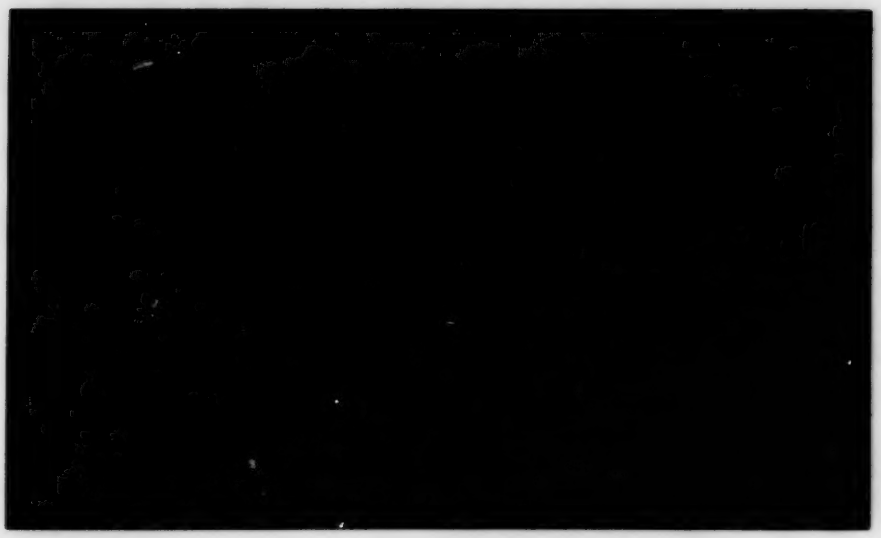
Cornus canadensis
Gaultheria procumbens
Ledum groenlandicum
Picea mariana
Rosa acicularis
Vaccinium spp.

Herbs

Cladina rangiferina
Clintonia borealis
feathermoss
Maianthemum canadense

Plate 56.





V31

STAND CLASSIFICATION

FEC Vegetation Type: V31
FEC Soils Type: S1
Forest Section: B.7

LOCATION

Latitude & longitude: 47°38'N,83°13'W
OMNR District: Chapleau
Plot number: 45

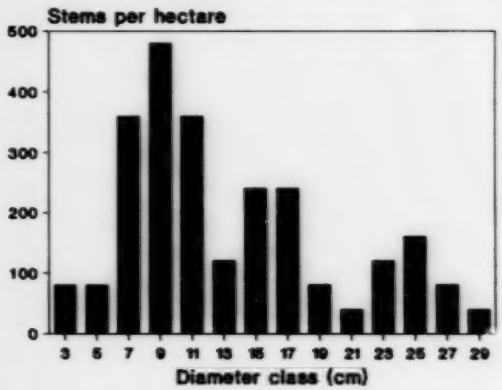
STAND CHARACTERISTICS

Overstory Composition: Black spruce 64% Jack pine 36%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	23.5	15.5
Jack pine	23.0	16.0
Black spruce	18.0	9.0
Black spruce	15.0	6.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.13	0-2 cm	0.75
3-7 cm	0.23	2-4 cm	0.65
≥ 7 cm	0.53	4-6 cm	1.08
		6-8 cm	0.99
Total	0.89	8-10 cm	0.73
		Total	4.20

Average forest-floor depth: 10.2 cm

Understory Vegetation

Shrubs

Chamaedaphne calyculata
Cornus canadensis
Diervilla lonicera
Ledum groenlandicum
Linnaea borealis
Picea mariana
Rosa acicularis
Vaccinium spp.

Herbs

feathermoss
Maianthemum canadense

Plate 57.

V31

STAND CLASSIFICATION

FEC Vegetation Type: V31
FEC Soils Type: S1
Forest Section: B.11

LOCATION

Latitude & longitude: 49°26'N,91°47'W
OMNR District: Ignace
Plot number: 149

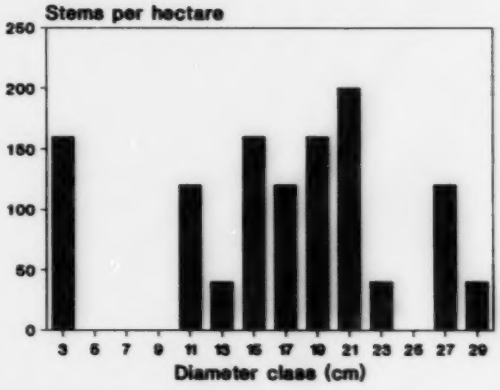
STAND CHARACTERISTICS

Overstory Composition: Black spruce 53% Jack pine 40% Poplar 7%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	16.8	11.0
Black spruce	14.2	1.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.13	0-2 cm	0.76
3-7 cm	0.10	2-4 cm	1.06
≥ 7 cm	0.36	4-6 cm	1.29
		6-8 cm	1.41
Total	0.59	8-10 cm	0.55
		Total	5.07

Average forest-floor depth: 8.6 cm

Understory Vegetation

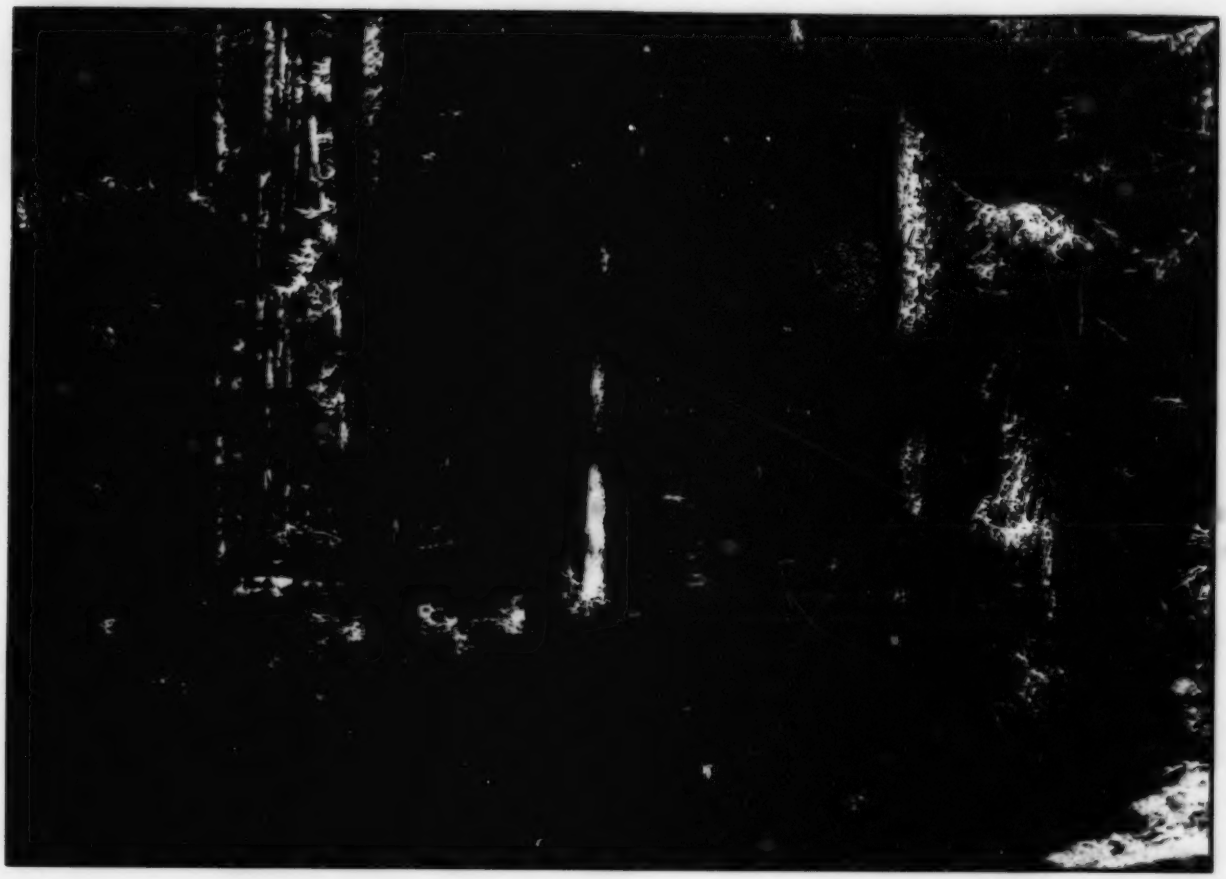
Shrubs

Alnus crispa
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Linnaea borealis
Picea mariana
Vaccinium spp.

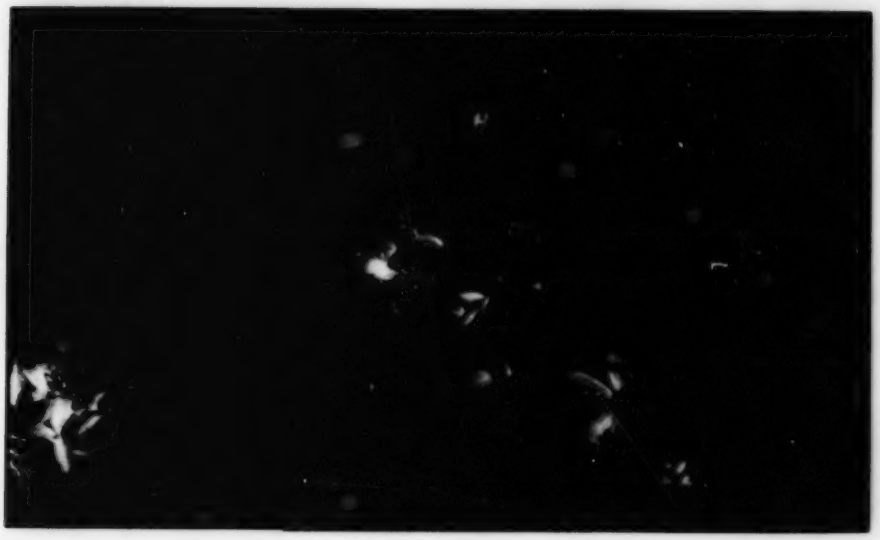
Herbs

Aralia nudicaulis
Cladina rangiferina
feathermoss
Maianthemum canadense

Plate 58.



V32



STAND CLASSIFICATION

FEC Vegetation Type: V32
FEC Soils Type: S1
Forest Section: B.7

LOCATION

Latitude & longitude: 47°56'N,82°35'W
OMNR District: Chapleau
Plot number: 32

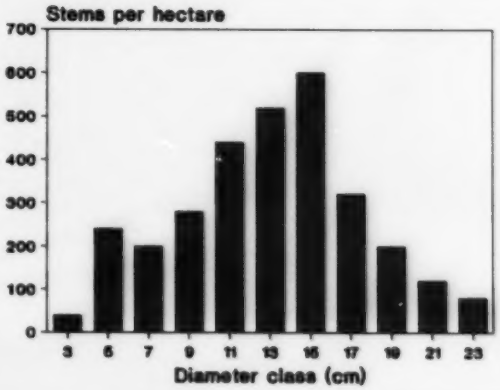
STAND CHARACTERISTICS

Overstory Composition: Jack pine 52% Black spruce 48%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	11.5	2.0
Jack pine	18.0	11.0
Black spruce	19.0	1.5
Jack pine	25.0	12.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.08	0-2 cm	0.48
3-7 cm	0.38	2-4 cm	0.90
≥ 7 cm	1.70	4-6 cm	0.74
		6-8 cm	1.49
Total	2.16	8-10 cm	0.47
		Total	4.08

Average forest-floor depth: 9.6 cm

Understory Vegetation

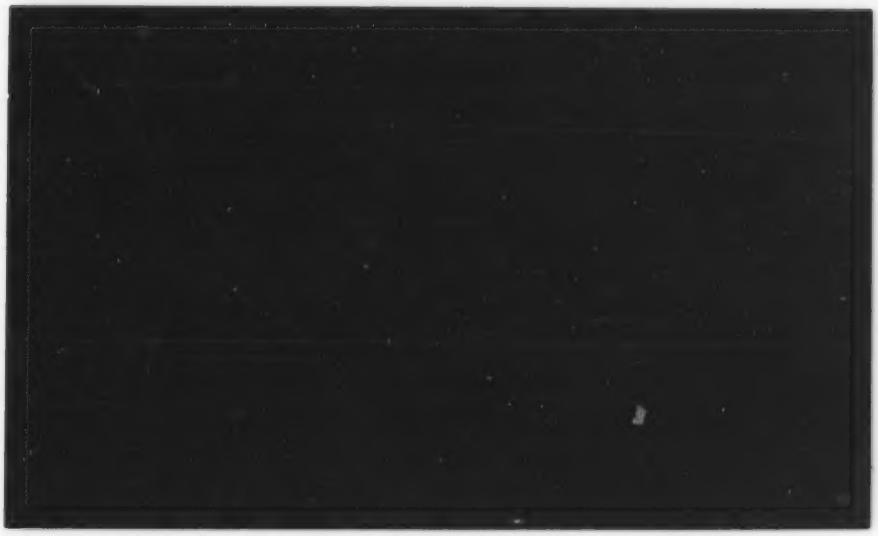
Shrubs

Cornus canadensis
Epigaea repens
Gaultheria hispidula
Picea mariana
Vaccinium spp.

Herbs

Cladina rangiferina
Pleurozium schreberi

Plate 59.



V32

STAND CLASSIFICATION

FEC Vegetation Type: V32
FEC Soils Type: SS7
Forest Section: L.11

LOCATION

Latitude & longitude: 49°42'N,94°14'W
OMNR District: Kenora
Plot number: 94

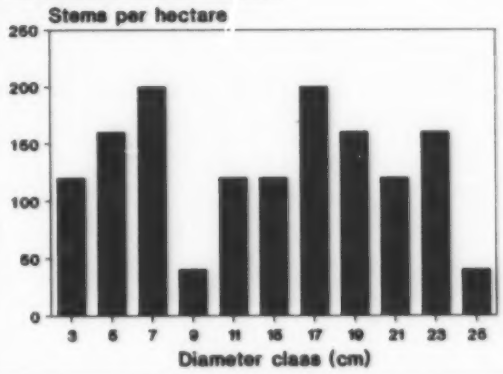
STAND CHARACTERISTICS

Overstory Composition: Jack pine 62% Black spruce 19% White birch 14% Poplar 5%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	14.0	5.0
Jack pine	15.5	2.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.31	0-2 cm	0.57
3-7 cm	0.18	2-4 cm	0.49
≥ 7 cm	1.57	4-6 cm	0.67
		6-8 cm	0.36
Total	2.06		
		Total	2.09

Average forest-floor depth: 5.5 cm

Understory Vegetation

Shrubs

Abies balsamea
Amelanchier spp.
Chimaphila umbellata
Cornus canadensis
Corylus cornuta
Diervilla lonicera
Gaultheria procumbens
Ledum groenlandicum
Linnaea borealis
Pinus banksiana
Populus spp.
Potentilla tridentata
Salix spp.
Vaccinium spp.

Herbs

Apocynum androsaemifolium
Aralia nudicaulis
Cladina rangiferina
feathermoss
Lycopodium clavatum
Maianthemum canadense

Plate 60.

V32

STAND CLASSIFICATION

FEC Vegetation Type: V32
FEC Soils Type: S10
Forest Section: B.14

LOCATION

Latitude & longitude: 49°49'N,93°17'W
OMNR District: Dryden
Plot number: 125

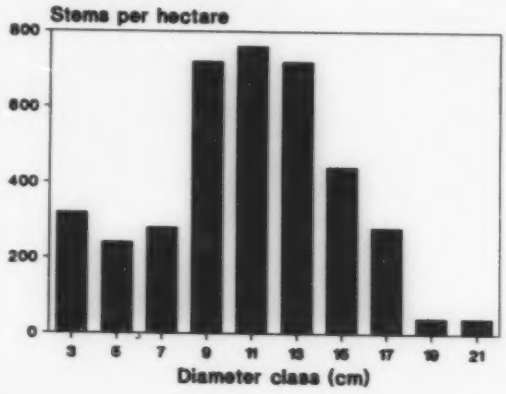
STAND CHARACTERISTICS

Overstory Composition: Black spruce 62% Jack pine 33% Poplar 5%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Jack pine	15.5	9.0
Black spruce	15.5	7.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.11	0-2 cm	0.43
3-7 cm	0.37	2-4 cm	0.61
≥ 7 cm	0.74	4-6 cm	1.03
		6-8 cm	1.00
Total	1.22	8-10 cm	1.46
		Total	4.53

Average forest-floor depth: 22.4 cm

Understory Vegetation

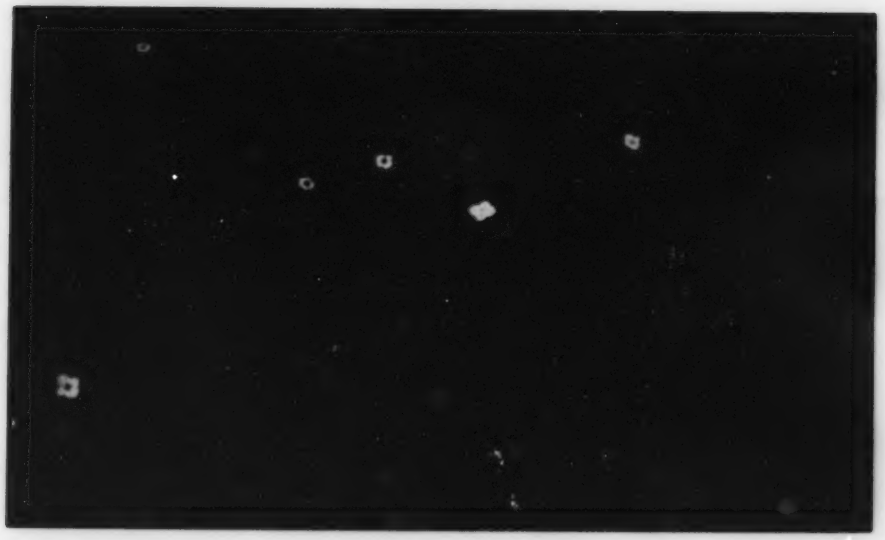
Shrubs

Alnus rugosa
Cornus canadensis
Cornus rugosa
Gaultheria hispidula
Ledum groenlandicum
Populus tremuloides
Rosa acicularis
Sphagnum spp.
Trientalis borealis
Viola spp.

Herbs

feathermoss
Fragaria virginiana
Galium triflorum
Mitella nuda
Petasites palmatus
Pleurozium schreberi
Rubus pubescens

Plate 61.



V32

STAND CLASSIFICATION

FEC Vegetation Type: V32
FEC Soils Type: SS5
Forest Section: B.9

LOCATION

Latitude & longitude: 48°49'N,89°07'W
OMNR District: Thunder Bay
Plot number: 181

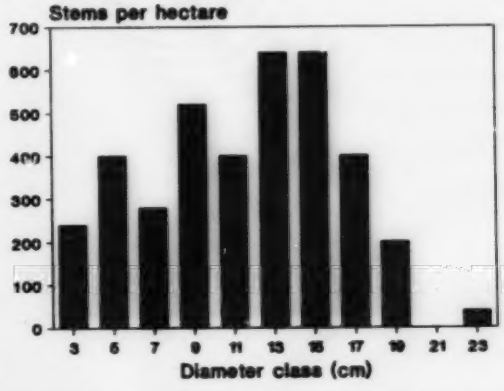
STAND CHARACTERISTICS

Overstory Composition: Black spruce 67% Jack pine 33%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	10.5	6.0
Jack pine	12.3	10.8

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.22	0-2 cm	0.45
3-7 cm	0.43	2-4 cm	0.64
≥ 7 cm	1.80	4-6 cm	0.68
		6-8 cm	1.23
Total	2.45	8-10 cm	0.98
		Total	3.98

Average forest-floor depth: 20.8 cm

Understory Vegetation

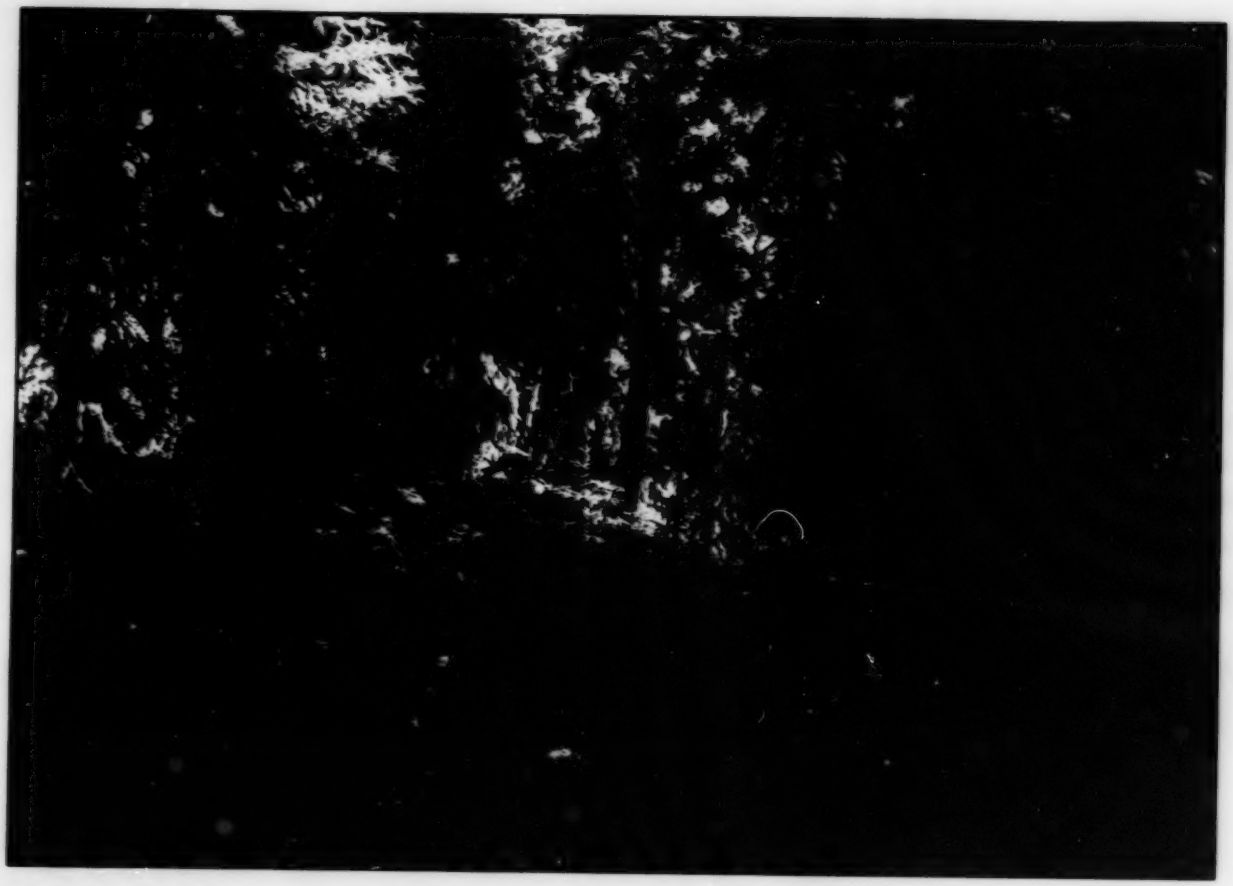
Shrubs

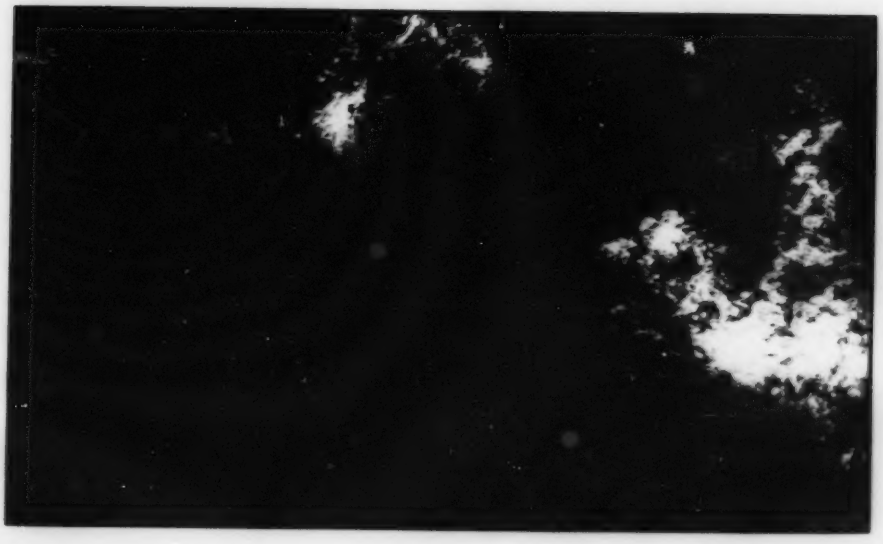
Cornus canadensis
Gaultheria hispidula
Ledum groenlandicum
Linnea borealis
Picea mariana
Vaccinium spp.

Herbs

Cladina rangiferina
feathermoss
Sphagnum spp.

Plate 62.





V32

STAND CLASSIFICATION

FEC Vegetation Type: V32
FEC Soils Type: S1
Forest Section: B.9

LOCATION

Latitude & longitude: 48°43'N,89°22'W
OMNR District: Thunder Bay
Plot number: 199

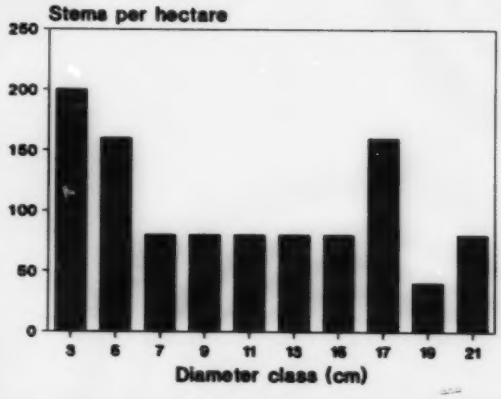
STAND CHARACTERISTICS

Overstory Composition: Black spruce 87% Balsam fir 13%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	15.0	6.0
Black spruce	15.5	4.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.10	0-2 cm	0.44
3-7 cm	0.05	2-4 cm	0.62
≥ 7 cm	0.67	4-6 cm	0.65
		6-8 cm	0.28
Total	0.82	8-10 cm	0.08
		Total	2.07

Average forest-floor depth: 6.2 cm

Understory Vegetation

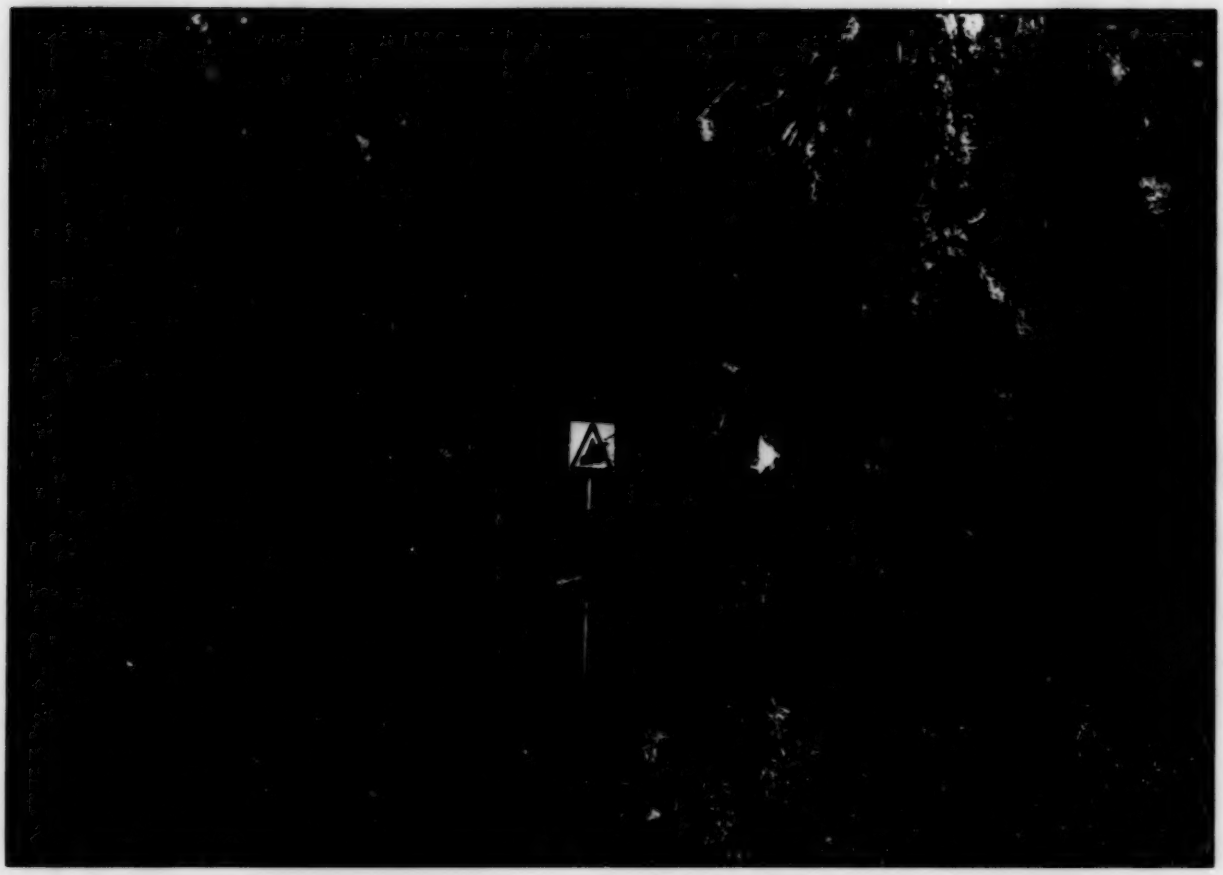
Shrubs

Arctostaphylos uva-ursi
Cornus canadensis
Gaultheria hispidula
Ledum groenlandicum
Linnea borealis
Picea mariana
Vaccinium spp.

Herbs

Cladina rangiferina
feathermoss
Lycopodium complanatum
Maianthemum canadense

Plate 63.



V33

STAND CLASSIFICATION

FEC Vegetation Type: V33
FEC Soils Type: S2
Forest Section: B.7

LOCATION

Latitude & longitude: 47°49'N,83°42'W
OMNR District: Chapleau
Plot number: 46

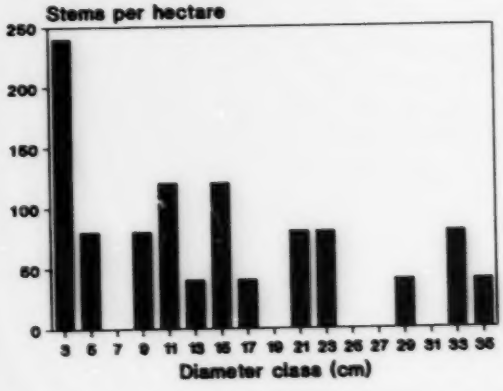
STAND CHARACTERISTICS

Overstory Composition: Black spruce 69% Balsam fir 13% Jack pine 12 White spruce 6%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	19.0	3.0
Black spruce	17.0	0.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.51	0-2 cm	0.33
3-7 cm	0.25	2-4 cm	0.49
≥ 7 cm	3.73	4-6 cm	0.69
		6-8 cm	0.79
Total	4.49	8-10 cm	0.83
		Total	3.13

Average forest-floor depth: 10.6 cm

Understory Vegetation

Shrubs

Alnus crispa
Cornus canadensis
Epigaea repens
Gaultheria hispidula
Ledum groenlandicum
Linnaea borealis
Picea mariana
Sorbus americana
Vaccinium spp.

Herbs

Clintonia borealis
feathermoss
Maianthemum canadense
Trientalis borealis

Plate 64.

V33

STAND CLASSIFICATION

FEC Vegetation Type: V33
FEC Soils Type: S2
Forest Section: B.9

LOCATION

Latitude & longitude: 48°43'N,89°21'W
OMNR District: Thunder Bay
Plot number: 197

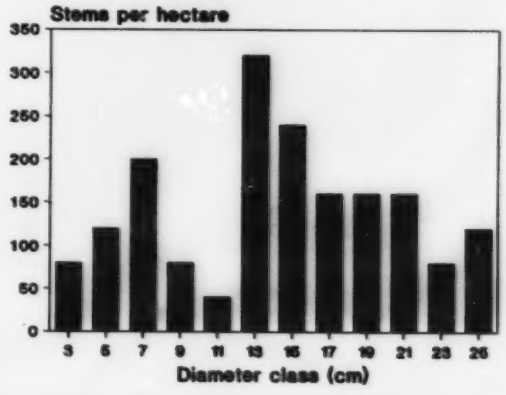
STAND CHARACTERISTICS

Overstory Composition: Black spruce 74% Jack pine 9% Poplar 9% Balsam fir 4% White birch 4%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	16.3	5.0
Black spruce	15.7	8.5

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.15	0-2 cm	0.25
3-7 cm	0.27	2-4 cm	0.41
≥ 7 cm	0.92	4-6 cm	0.89
		6-8 cm	0.63
Total	1.34	8-10 cm	0.90
		Total	3.08

Average forest-floor depth: 12.4 cm

Understory Vegetation

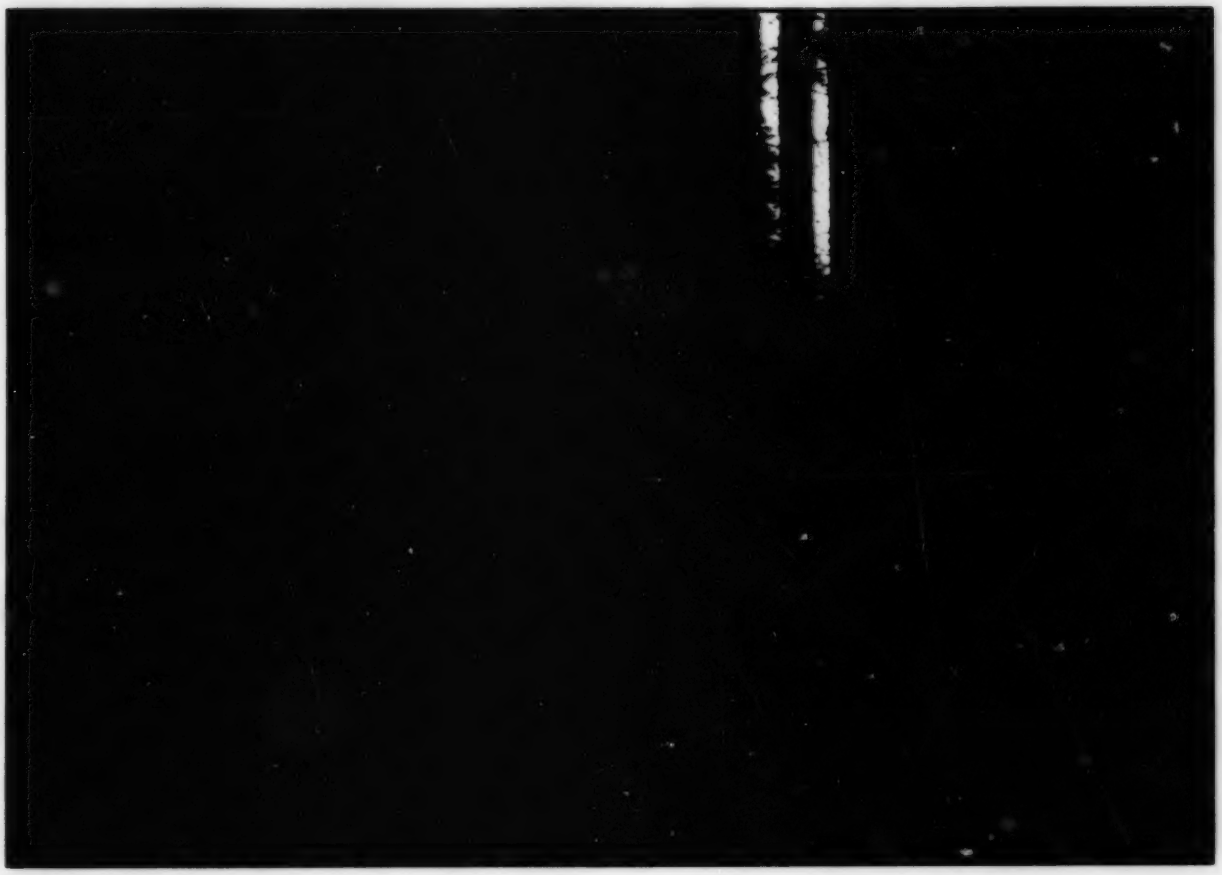
Shrubs

Abies balsamea
Alnus crispa
Cornus canadensis
Gaultheria hispidula
Ledum groenlandicum
Picea mariana
Populus tremuloides
Rosa acicularis
Salix spp.
Vaccinium spp.

Herbs

Clintonia borealis
Epilobium angustifolium
feathermoss
Maianthemum canadense

Plate 65.



V33

STAND CLASSIFICATION

FEC Vegetation Type: V33
FEC Soils Type: S7
Forest Section: B.8

LOCATION

Latitude & longitude: 49°40'N,87°48'W
OMNR District: Nipigon
Plot number: 228

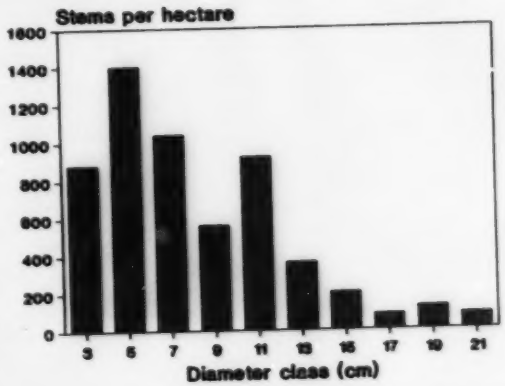
STAND CHARACTERISTICS

Overstory Composition: Black spruce 50% Jack pine 45% Balsam fir 5%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	18.0	9.0
Jack pine	15.0	9.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.27	0-2 cm	0.73
3-7 cm	0.15	2-4 cm	1.37
≥ 7 cm	0.49	4-6 cm	1.60
		6-8 cm	1.02
Total	0.91	8-10 cm	0.62
		Total	5.34

Average forest-floor depth: 9.2 cm

Understory Vegetation

Shrubs

Abies balsamea
Alnus crispa
Cornus canadensis
Epigaea repens
Gaultheria hispidula
Ledum groenlandicum
Linnaea borealis
Picea mariana
Rosa acicularis

Herbs

Clintonia borealis
Equisetum silvaticum
feathermoss

Plate 66.

V34

STAND CLASSIFICATION

FEC Vegetation Type: V34
FEC Soils Type: S1
Forest Section: B.7

LOCATION

Latitude & longitude: 47°49'N,83°39'W
OMNR District: Chapleau
Plot number: 48

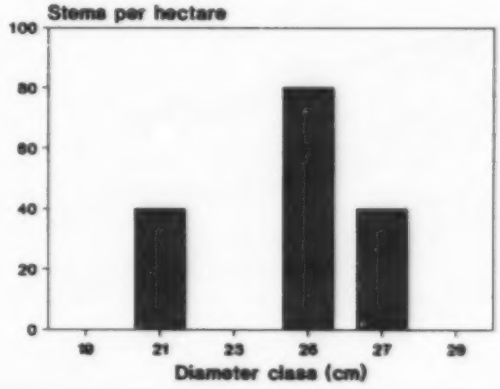
STAND CHARACTERISTICS

Overstory Composition: Black spruce 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	13.0	0.0
Black spruce	12.5	0.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.29	0-2 cm	0.35
3-7 cm	0.30	2-4 cm	0.64
≥ 7 cm	2.95	4-6 cm	0.68
		6-8 cm	0.48
Total	3.54	8-10 cm	0.20
		Total	2.35

Average forest-floor depth: 14.4 cm

Understory Vegetation

Shrubs

Epigaea repens
Ledum groenlandicum
Picea mariana
Vaccinium spp.

Herbs

Cladina rangiferina
feathermoss

Plate 67.

V34

STAND CLASSIFICATION

FEC Vegetation Type: V34
FEC Soils Type: S12F
Forest Section: B.9

LOCATION

Latitude & longitude: 48°48'N,89°06'W
OMNR District: Thunder Bay
Plot number: 185

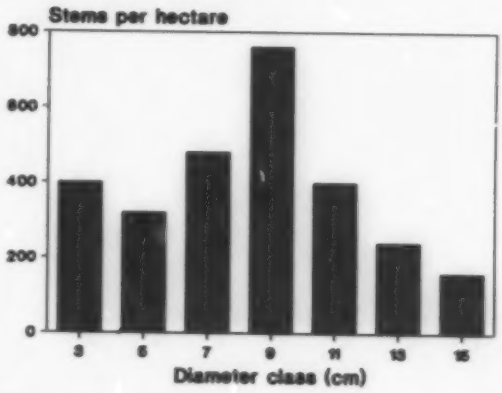
STAND CHARACTERISTICS

Overstory Composition: Black spruce 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	15.8	9.0
Black spruce	14.2	8.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.17	0-2 cm	0.63
3-7 cm	0.34	2-4 cm	0.23
≥ 7 cm	0.78	4-6 cm	0.29
		6-8 cm	0.54
Total	1.29	8-10 cm	0.42
		Total	2.11

Average forest-floor depth: 70.0 cm

Understory Vegetation

Shrubs

Chamaedaphne calyculata
Gaultheria hispidula
Ledum groenlandicum
Vaccinium spp.
Oxycoccus microcarpus
Sphagnum spp.
Smilacina trifolia

Herbs

Equisetum silvaticum
feathermoss
graminoid spp.
Lycopodium annotinum

Plate 68.

V34

STAND CLASSIFICATION

FEC Vegetation Type: V34
FEC Soils Type: S12F
Forest Section: B.8

LOCATION

Latitude & longitude: 49°40'N,87°42'W
OMNR District: Nipigon
Plot number: 226

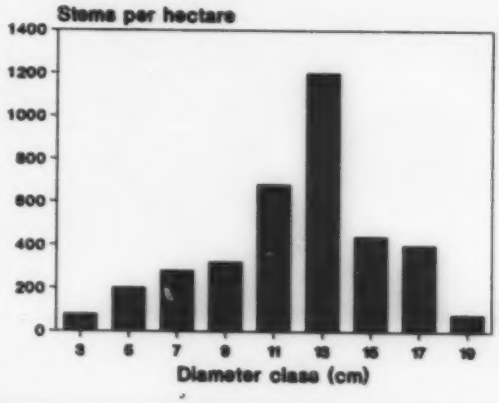
STAND CHARACTERISTICS

Overstory Composition: Black spruce 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	16.0	7.0
Black spruce	17.0	9.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.23	0-2 cm	0.25
3-7 cm	0.37	2-4 cm	0.51
≥ 7 cm	1.20	4-6 cm	0.56
		6-8 cm	0.54
Total	1.80	8-10 cm	0.70
		Total	2.56

Average forest-floor depth: 50.0 cm

Understory Vegetation

Shrubs

Alnus rugosa
Cornus canadensis
Gaultheria hispidula
Ledum groenlandicum
Linnaea borealis
Vaccinium spp.
Rubus pubescens
Sphagnum spp.

Herbs

Clintonia borealis
Coptis trifolia
Equisetum silvaticum
feathermoss
graminoid spp.
Mitella nuda

Plate 69.

V34

STAND CLASSIFICATION

FEC Vegetation Type: V34
FEC Soils Type: S12F
Forest Section: B.8

LOCATION

Latitude & longitude: 49°39'N,87°48'W
OMNR District: Nipigon
Plot number: 230

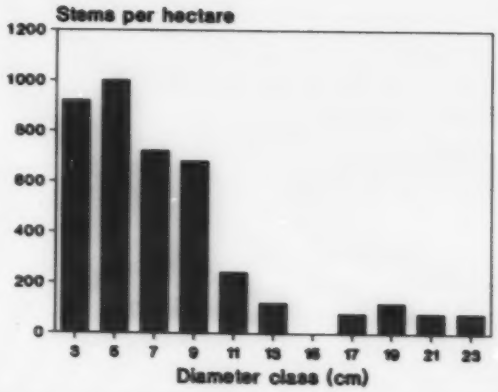
STAND CHARACTERISTICS

Overstory Composition: Black spruce 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	17.0	5.0
Black spruce	18.0	4.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.25	0-2 cm	0.31
3-7 cm	0.07	2-4 cm	0.47
≥ 7 cm	0.48	4-6 cm	0.76
		6-8 cm	1.15
Total	0.80	8-10 cm	0.99
		Total	3.68

Average forest-floor depth: 60.0 cm

Understory Vegetation

Shrubs

Chamaedaphne calyculata
Cornus canadensis
Gaultheria hispidula
Ledum groenlandicum
Linnaea borealis
Picea marina
Rosa acicularis
Vaccinium spp.

Herbs

Coptis trifolia
feathermoss
Sphagnum spp.

Plate 70.

V34

STAND CLASSIFICATION

FEC Vegetation Type: V34
FEC Soils Type: S6
Forest Section: B.4

LOCATION

Latitude & longitude: 49°07'N,81°23'W
OMNR District: Cochrane
Plot number: 264

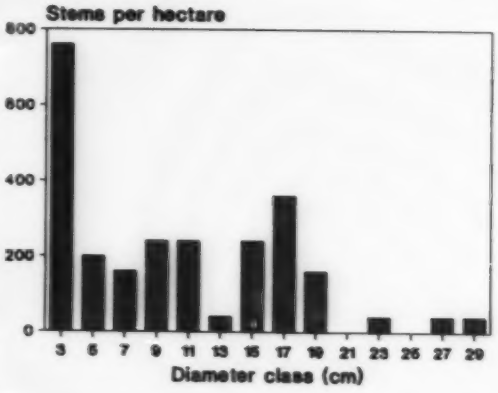
STAND CHARACTERISTICS

Overstory Composition: Black spruce 61% Balsam fir 39%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	18.0	11.0
Balsam fir	14.0	9.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.27	0-2 cm	0.23
3-7 cm	0.20	2-4 cm	0.24
≥ 7 cm	1.35	4-6 cm	0.30
		6-8 cm	0.49
Total	1.82	8-10 cm	0.71
		Total	1.97

Average forest-floor depth: 54.3 cm

Understory Vegetation

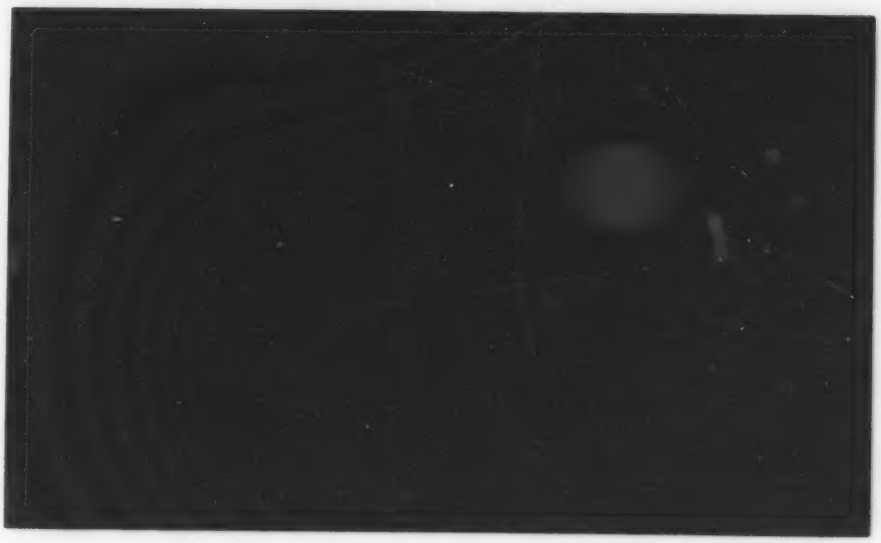
Shrubs

Abies balsamea
Gaultheria hispidula
Ledum groenlandicum
Picea mariana
Vaccinium spp.

Herbs

feathermoss
Sphagnum spp.

Plate 71.



V34

STAND CLASSIFICATION

FEC Vegetation Type: V34
FEC Soils Type: S12S
Forest Section: B.4

LOCATION

Latitude & longitude: 49°08'N,81°22'W
OMNR District: Cochrane
Plot number: 270

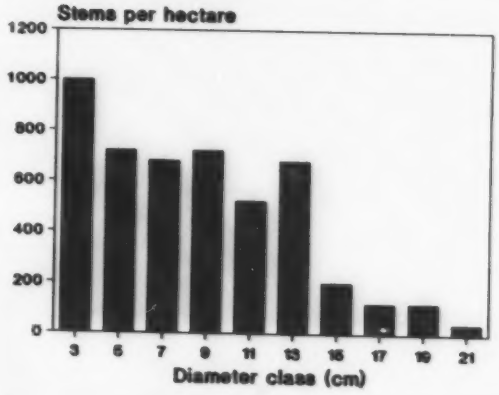
STAND CHARACTERISTICS

Overstory Composition: Black spruce 78% Tamarack 22%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	14.0	3.0
Black spruce	13.0	2.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.04	0-2 cm	0.31
3-7 cm	0.03	2-4 cm	0.48
≥ 7 cm	0.08	4-6 cm	0.59
		6-8 cm	0.60
Total	0.15	8-10 cm	0.65
		Total	2.63

Average forest-floor depth: 100.0cm

Understory Vegetation

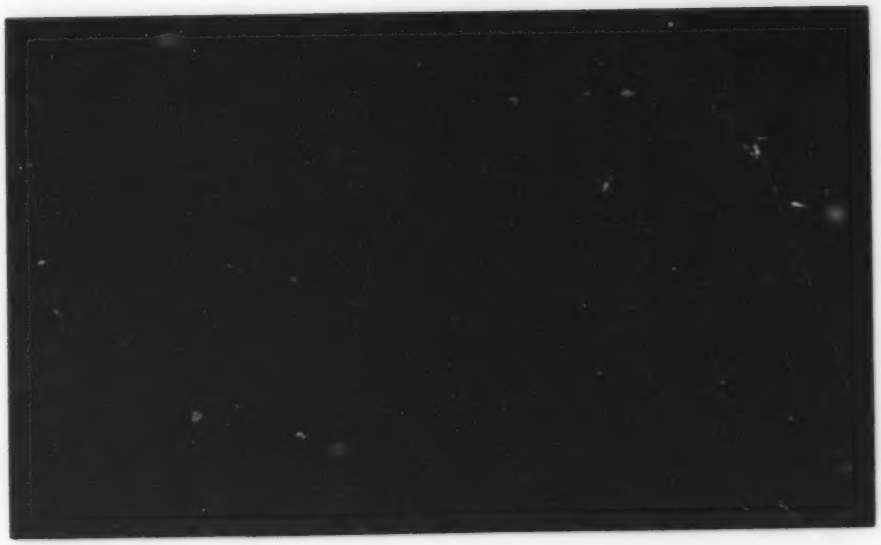
Shrubs

Alnus rugosa
Gaultheria hispidula
Ledum groenlandicum
Picea mariana

Herbs

feathermoss
Lycopodium annotinum
Sphagnum spp.
Viola spp.

Plate 72.



V35

STAND CLASSIFICATION

FEC Vegetation Type: V35
FEC Soils Type: S12S
Forest Section: B.7

LOCATION

Latitude & longitude: 47°45'N,83°24'W
OMNR District: Chapleau
Plot number: 44

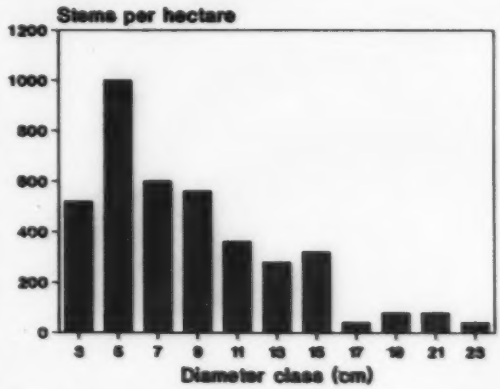
STAND CHARACTERISTICS

Overstory Composition: Black spruce 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	20.5	2.0
Black spruce	18.5	0.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.10	0-2 cm	0.20
3-7 cm	0.19	2-4 cm	0.29
≥ 7 cm	0.35	4-6 cm	0.74
		6-8 cm	0.65
Total	0.64	8-10 cm	0.90
		Total	2.78

Average forest-floor depth: 106.0cm

Understory Vegetation

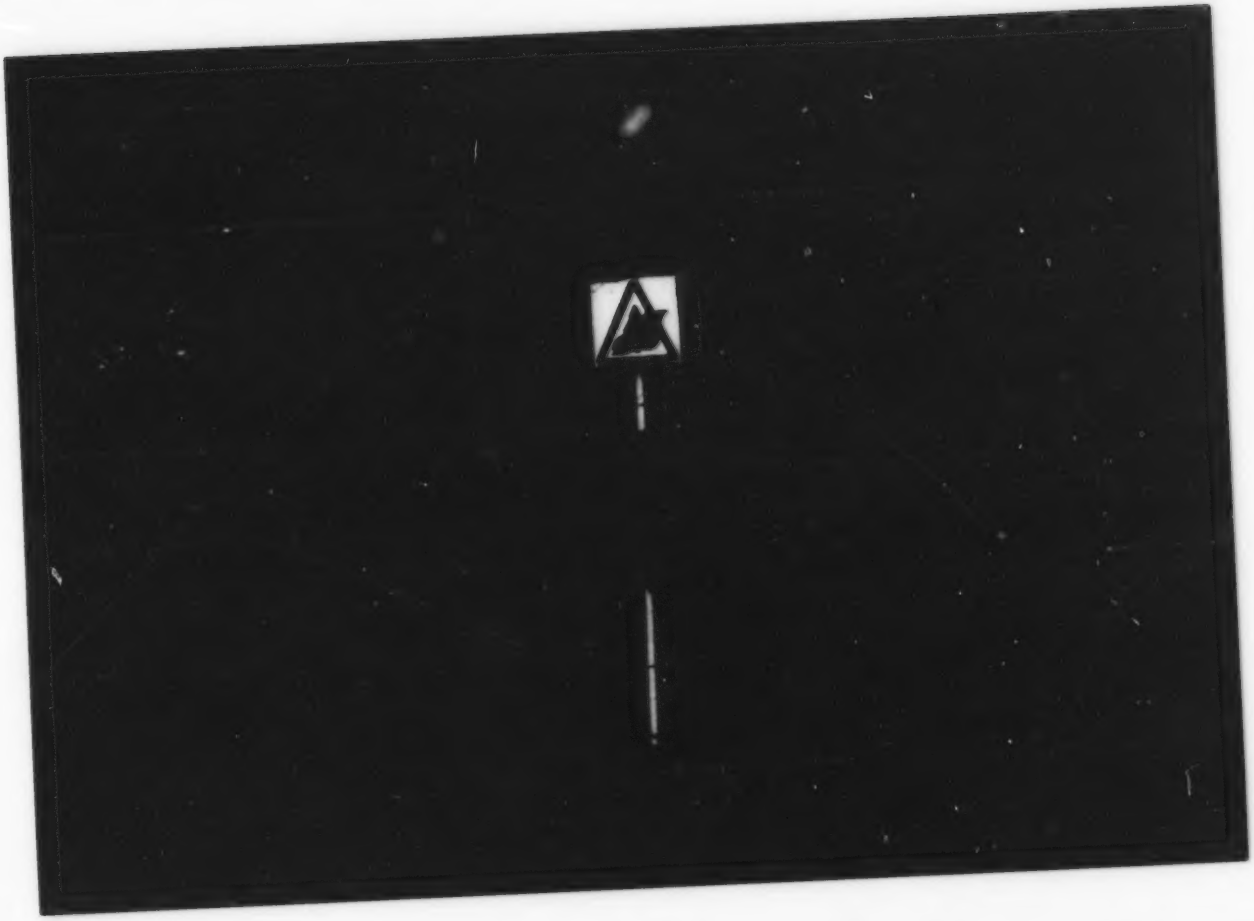
Shrubs

Alnus rugosa
Gaultheria procumbens
Ledum groenlandicum
Linnaea borealis
Picea mariana
Rosa acicularis
Vaccinium spp.

Herbs

Coptis trifolia
Equisetum silvaticum
Fragaria virginiana
graminoid spp.
Sphagnum spp.
Solidago spp.

Plate 73.



V35

STAND CLASSIFICATION

FEC Vegetation Type: V35
FEC Soils Type: S12S
Forest Section: B.4

LOCATION

Latitude & longitude: 49°07'N,81°23'W
OMNR District: Cochrane
Plot number: 262

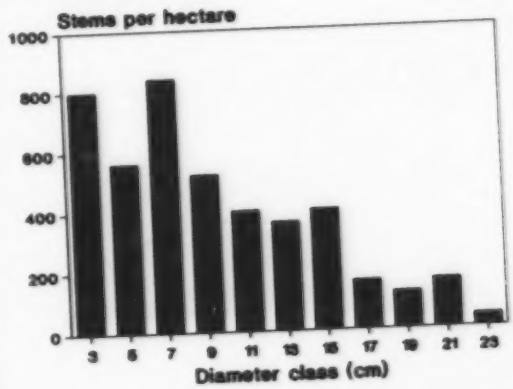
STAND CHARACTERISTICS

Overstory Composition: Black spruce 68% Tamarack 32%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	15.0	3.0
Tamarack	14.0	9.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.14	0-2 cm	0.18
3-7 cm	0.18	2-4 cm	0.26
≥ 7 cm	0.55	4-6 cm	0.38
		6-8 cm	0.43
Total	0.87	8-10 cm	0.58
		Total	1.83

Average forest-floor depth: 100.0cm

Understory Vegetation

Shrubs

Alnus rugosa
Chamaedaphne calyculata
Cornus canadensis
Gaultheria hispidula
Ledum groenlandicum
Linnaea borealis
Picea mariana
Sphagnum spp.

Herbs

Aralia nudicaulis
Cladina rangiferina
Coptis trifolia
feathermoss
graminoid spp.
Mitella nuda
Rubus pubescens

Plate 74.

V37

STAND CLASSIFICATION

FEC Vegetation Type: V37
FEC Soils Type: S12S
Forest Section: B.7

LOCATION

Latitude & longitude: 47°44'N,83°20'W
OMNR District: Chapleau
Plot number: 56

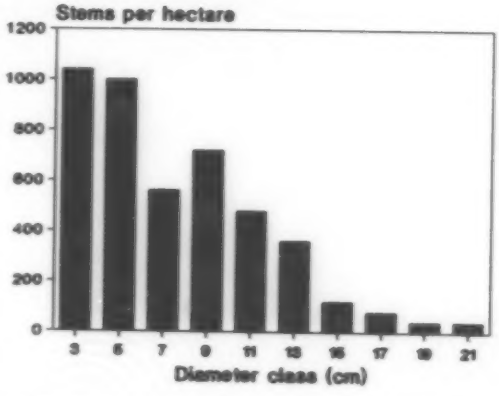
STAND CHARACTERISTICS

Overstory Composition: Black spruce 100%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	16.0	5.0
Black spruce	14.0	6.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.16	0-2 cm	0.21
3-7 cm	0.05	2-4 cm	0.16
≥ 7 cm	0.33	4-6 cm	0.29
		6-8 cm	0.26
Total	0.54	8-10 cm	0.30
		Total	1.22

Average forest-floor depth: 120.0cm

Understory Vegetation

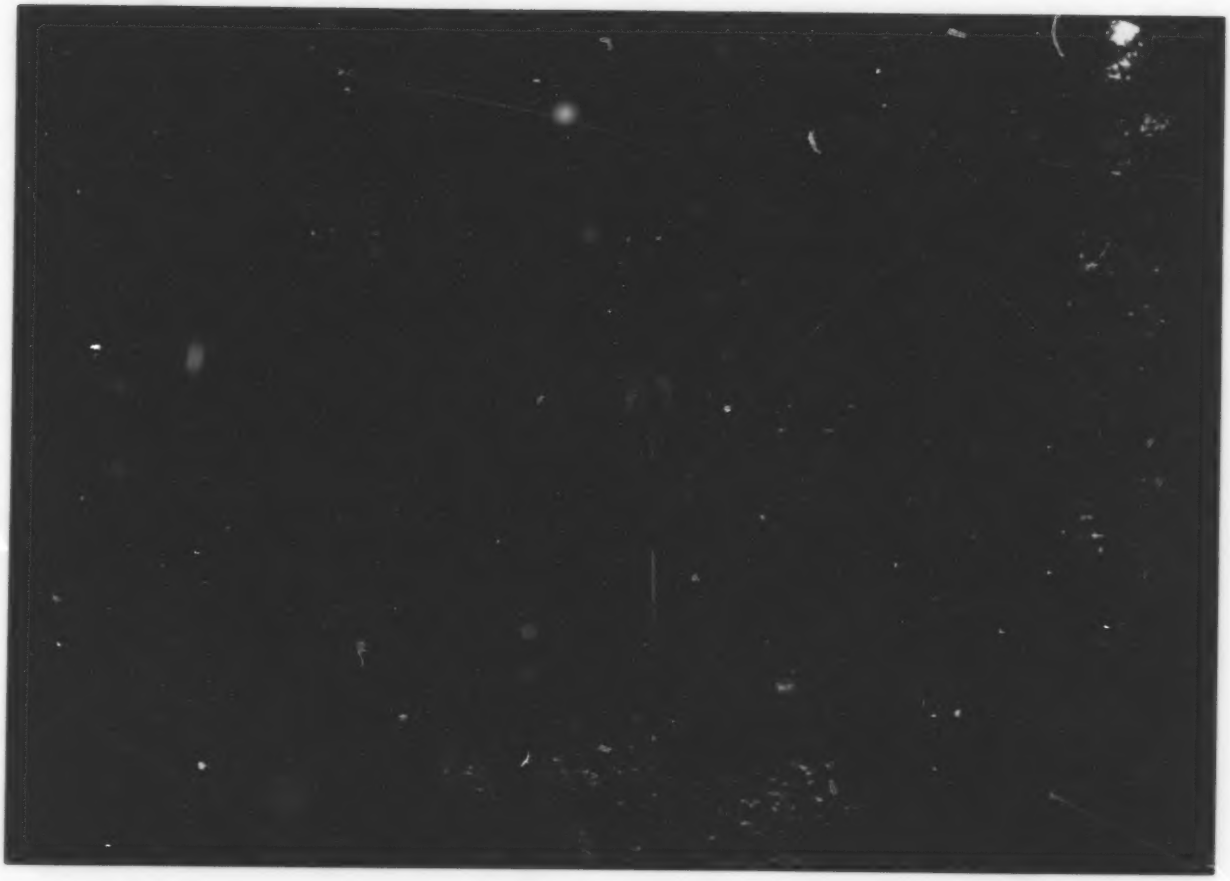
Shrubs

Gaultheria hispidula
Ledum groenlandicum
Picea mariana
Vaccinium spp.
Sphagnum spp.

Herbs

Cladina rangiferina
Clintonia borealis
feathermoss
Lycopodium annotinum

Plate 75.



V37

STAND CLASSIFICATION

FEC Vegetation Type: V37
FEC Soils Type: S12S
Forest Section: B.4

LOCATION

Latitude & longitude: 49°07'N,81°23'W
OMNR District: Cochrane
Plot number: 266

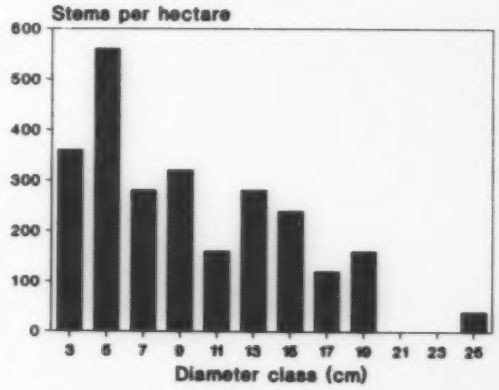
STAND CHARACTERISTICS

Overstory Composition: Black spruce 75% Balsam fir 25%

Dominant Trees:

Species	Height(m)	Height to live crown(m)
Black spruce	13.0	6.0
Balsam fir	10.0	4.0

Diameter Distribution



Fuel Loads (kg/sq. m)

Woody surface		Forest floor	
0-3 cm	0.21	0-2 cm	0.15
3-7 cm	0.27	2-4 cm	0.25
≥ 7 cm	0.79	4-6 cm	0.45
		6-8 cm	0.93
Total	1.27	8-10 cm	1.01
		Total	2.79

Average forest-floor depth: 80.0 cm

Understory Vegetation

Shrubs	Herbs
Abies balsamea	feathermoss
Alnus rugosa	Rubus pubescens
Cornus canadensis	Sphagnum spp.
Gaultheria hispidula	
Ledum groenlandicum	
Picea mariana	